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## Open and Distance Learning

Open and Distance Learning is often seen as the answer to expanding access to education and lifelong learning. This paper explores the rhetoric and the reality and concludes that ODL has a vital part to play in the 21<sup>st</sup> Century.

### Summary

#### Open/distance learning (ODL)

ODL is a blanket term for learning systems that offer varying mixes of openness and distance. The contrast is with 'conventional', relatively face to face systems. *Open learning* is resource-based learning designed for individual use. *Distance learning* is simply when teacher and learner are not in the same place.

#### ODL technologies

ODL approaches can use any available technology – print, audio-visual, computer-based, and online. Different technologies serve different purposes, so good systems combine these in effective ways.

#### ODL is good at

- Vastly increasing access
- Operating at scale whilst maintaining quality.
- Achieving cost-effectiveness when done at scale
- Professional development 'on the job'.

#### ODL is not so good at

- Learner support, unless significant investment is made (as the OU has done)
- Subjects with extensive laboratory requirements
- Cost effectiveness at small scale.

#### ODL in practice

- Uses old and new technologies
- Educational radio and television, mostly at primary and secondary levels
- Useful tool for adult education and non-institutional learning opportunities
- A small number of open schools, mainly in India and Indonesia
- Open universities (ODL only) and dual-mode universities (ODL & conventional)
- ODL can be perceived as 'second-best', and this is not necessary
- There are many local, regional and global ODL networks and agencies

- Teacher education is the dominant application, and there are some very significant multilateral projects in Africa

## Key conclusions

- Part of the solution to expanding access to HE, but vital to plan strategically and at scale, including materials, learner support and logistics
- a very valuable tool for professional development – health, education, business, etc.
- Open education resources (OERs) offer great opportunities
- Considerable potential for enriching secondary education as participation rises
- Educational radio and television have much to offer at many levels
- Better networking and sharing of expertise should be encouraged
- Improving connectivity and Internet access is a priority

## What is ODL?

### Open learning, distance learning and open/distance learning versus 'conventional' learning – a spectrum not a dichotomy

**Open learning** is resource based learning designed for individual use without the presence of a teacher. This can occur in campus and off-campus settings, and in full-time and part-time study.

**Distance learning** refers to situations where the learner and teacher are geographically far apart. This could be relaying a lecture in one location to a number of other sites. It could be educational radio or television programmes being transmitted to many different locations, perhaps mediated by a teacher or facilitator in some of those locations. Or it could be a feature of systems where learners' study is based on packages of learning resources which they study wherever they happen to be and whenever they choose.

**Open/distance learning (ODL)** is a blanket term that encompasses blends of learning in different mixes and contexts. The contrast is with 'conventional' 'face to face' learning, deemed to be in classroom settings with a teacher, or more generally on a campus with timetabled teaching activities. In truth, there is a spectrum of practice, and drawing sharp distinctions can be unhelpful. Most systems that describe themselves as ODL have some face to face components – residential schools, tutorials, practical sessions, etc. Conversely, many 'conventional' systems have flexible elements and incorporate open learning resources into their curricula.

The most helpful approach is to use a broad definition of ODL, encompassing most of these forms of provision. This is the approach taken here.

## ODL encompasses e-learning, blended learning, mixed-mode learning, flexible learning, distributed learning...

There is a whole family of terms related to ODL that has grown up in recent years. Confusion is all too easy, and spurious distinctions are sometimes made.

**E-learning** is a good example. It is sometimes claimed that ODL is obsolete, and e-learning is the future. This confuses the process with the technology. A typical e-learning system will have electronic learner management arrangements, some online learning resources, online quizzes, provision for electronic conferencing, and enable online assignment handling. They may also have non-electronic elements, such as books. This is in essence a pretty good description of the contemporary UK Open University, the archetypal ODL organisation, which sees e-learning as integral to its current work.

This paper therefore incorporates 'e-learning', and other terms such as 'blended', 'mixed-mode', 'flexible' and 'distributed'. They all refer to mixes of open learning, distance learning, and face to face elements and will not be further distinguished.

## ODL has three key components – learning resources, learner support and logistics

The learning resources are the main teaching tool, and come in many forms. Learner support covers any individual help learners get, such as troubleshooting, marking work, and advice and guidance. Logistics is the set of processes by which resources reach the learners, the learners and their support systems interact, and records are kept. The vital features of each component are summarised below.

**Good open learning resources are expensive to produce, and to be cost-effective need to be used by many learners.** Open learning resources are intended for use without the mediation of their originators. They must be able to explain ideas and foster thinking without frequent trouble-shooting and interpretation. This takes time and effort, and can therefore entail considerable cost. However, once they are created, the more learners that use them, the lower the effective unit cost, without any diminution in quality.

One good example of large-scale use is when the open learning resources are in the form of radio or television programmes that can be accessed by many thousands of learners. However many learners there are, the quality is unaltered. Another example is when the open learning resources are sets of materials designed for individual study at times and places of the learners' choosing. They may be in print form, on CDs/DVDs or online, but whichever form they take, their quality is not affected by the numbers of learners.

**ODL learners benefit from support, but economies of scale are much less salient.** In the case of educational radio/television programmes there are often accompanying notes with suggestions for preparation and follow-up work. These may be targeted at individuals or at mediators such as teachers/facilitators, leading to enhanced learning. However, any mediator can only deal with limited numbers of

people effectively, so their numbers need to be in proportion to learner numbers. There is much less scope for economies of scale here.

The same is true of students in ODL institutions. OU students have tutors/associate lecturers to mark their work and help with difficulties, and this will be characteristic of many such settings. Tutor numbers are broadly proportional to student numbers.

**ODL systems require effective logistics and costs here are also largely pro-rata.** Radio and television programmes have fixed schedules that influence how and when they can be used. In the case of ODL institutions like the OU, materials have to get to students promptly, assignments have to be routed quickly between markers and students, and robust records need to be kept. Otherwise the system soon falls apart and quality is rapidly lost.

## Technology and ODL

### ODL is a methodology not a technology and can use anything that is available

ODL can deploy any educational technology. There are two key considerations. One is the effectiveness of the proposed technology for learning and teaching. The other is accessibility to students. When the OU began in 1971 it could only use print, black and white television, and radio, since students had nothing else. Video-cassettes, CDs, DVDs, the Internet and personal computers were yet to come. Anything else a student needed, such as equipment for science, was either sent to the student as a 'home experiment kit' or made available in a summer school. But the OU worked well without any 'new technologies'.

Now that the OU can legitimately assume that its students have a wide range of technologies available to them, including being online for some of the time, it can and does deploy an enormous range of technologies and systems. Science students visit the Galapagos on virtual field trips, many learning resources are online, most students research the Internet for additional resources, some undertake collaborative projects through online fora, and many submit assignments electronically, which tutors then mark in the same way. And the whole is managed by a learning management system.

The OU shows that technology is a means to an end, not an end in itself. Each new possibility has altered OU materials and interaction with students, but the fundamental principles remain. Any technology can be deployed in the service of ODL.

It follows that any claim that ODL cannot be done until connectivity is high is misconceived, with the OU's history as an obvious counter example. Connectivity and the Internet offer enormous opportunities, but they are not a sine qua non.

## Connectivity and the Internet have nevertheless opened up new ODL opportunities

**Virtual meetings:** students in diverse locations can ‘meet’ each other and their tutors virtually. This can happen in situations as diverse as groups of students and lecturers on a campus and those where the participants are in different countries. They can ‘chat’ as well as discuss problems and solutions, and submit and receive assignments.

**Academic collaboration:** it is much easier to work across institutions on resource development and to participate in networks of ODL practitioners. This means that economies of scale do not necessarily have to be achieved within one institution, but can be shared across many. This also facilitates the sharing of ideas and approaches.

**Access to ODL resources from anywhere in the world:** it is not necessary to create resources from scratch if versions are already available. Even resources not originally intended for ODL use can be drawn upon. Adaptations may be necessary, but do not require the same level of investment as starting with a blank sheet, even when there are substantial copyright costs. And more and more are copyright free, being ‘open education resources’ (OERs), by analogy with the more familiar ‘open software’.

*See Appendix A for more information on OERs.*

## What is ODL especially good at?

***Vastly increasing access – both numbers of learners and geographical reach.***  
Radio and television can reach as many users as tune in, anywhere within transmission range. Potential numbers are far greater than those who could attend any one venue.

Where the learners are studying in ODL mode, their numbers can be as many as the learner support and logistics systems can handle. Some have more than a million students. Students can also be in many different places, apart from any face to face requirements. Furthermore, they have considerable freedom as to the times of study, fitting these in with their other commitments. Accessibility is therefore much greater.

***Operating at scale while maintaining quality.***

However many learners there are, quality can remain constant, if good learner support and logistics are in place, and the learning materials are well-constructed. When these conditions are in place, learner numbers are limited only by the capacity of the system to manage them.

That capacity is far less constrained than in ‘conventional’ settings. Good ODL systems capture excellent pedagogic and academic expertise that normally would only reach a few learners, and deliver it to thousands. Those thousands can then be supported by a large cadre of tutors, who bring other skills to bear – pedagogic, interpersonal and professional. Some of them may be practising academics, but

many of them will belong to other professions – teachers, business people, IT practitioners, lawyers, nurses – who tutor as an additional activity. Together they form a very large cadre of potential tutors, and, like the students, they live in many different places. Drawing on such people is what enables large ODL institutions to maintain quality.

***Achieving cost effectiveness when done at scale.***

In essence, the recurrent cost of an ODL system with N students has three factors.

(a) Learning resource costs which are unaffected by student numbers (LRES).

(b) Learner support costs in proportion to student numbers, say LS per student.

(c) Logistics costs which also relates to student numbers, say LG per student.

Of course both (b) and (c) have fixed elements too, but these are not dominant.

Total running costs can be approximated as  $LRES + N \times LS + N \times LG$

Cost per student can be approximated as  $LRES / N + LS + LG$

In other words, if N is large, unit costs per student become progressively smaller, and significant investment in the development of resources can be justified. The financial model is obviously in reality much more complex, but the general principles hold true. There are of course capital costs too, but there is no need to expand an ODL 'campus' to accommodate all its students.

Cost effectiveness therefore comes through operating at scale, and recognising the reduced need for capital investment in physical campuses.

***Professional development 'on the job'.***

Many professionals need and/or want updating, or to acquire related skills such as languages, IT etc. These skills are of immediate relevance to their work, and when the professional updating study is done in ODL mode, alongside regular work, there is an immediate effect. This is enhanced when the assessment requirements of the study entail reflection on the workplace context, and perhaps some innovations as well, which will be supported by the tutor and interactions with fellow students. At its best there is a constant interplay between study and work, which enriches both.

The contrast is with situations where work is left behind while study is occurring, to be picked up again when study is over. Innovations and applications to the workplace then take place later than they might have done, and without the support or structure provided by the ODL system.

## **What is ODL not so good at?**

***Learner support, unless significant investment is made in it.***

The experience of studying in ODL mode, especially off campus, is intrinsically different from studying in a lecture-driven, campus-based setting. If the resources are unclear, it is usually not possible to ask questions then and there. Opportunities for peer interaction, both academic and social, are limited. There are no 'open door'

times set aside when lecturers are available in person to give individual help and advice. Nor is there a careers centre to drop into, or a counselling service to hand. Good ODL systems recognise this, and make the investment necessary to provide analogous services through systems of tutors and tutorials, local offices, facilitating student – student discussion groups and so on. All these may be face to face, by telephone, or online (see Appendix D for the OU approach).

However learner support can be neglected – it is less glamorous than learning resource development and it requires organisation, planning and infrastructure. It is also a significant cost when done well, and this can be a problem. Yet it is a major cause of drop out and therefore warrants serious attention. Sometimes the focus is too much on learning resources and too little on learner support.

### ***Subjects with extensive laboratory requirements.***

Where a subject requires the use of specialist facilities, such as laboratories, severe constraints apply, both in terms of space and in terms of travelling distance to get to them. Good ODL systems can be ingenious in mitigating this, but it remains the case that some subjects are more difficult to manage than others. IT can be a great help here, but cannot solve all such challenges.

### ***Cost-effectiveness at small scale.***

Some ODL schemes are small scale. They may be institutionally owned or cottage industries run out of individual departments. The cost structure of ODL makes it very costly per student to do this, if staff time is properly included. This is exacerbated by the likelihood that all the learner support in small schemes is managed centrally by academic staff rather than through tutors, which has actual and opportunity cost consequences.

## **ODL experience to date**

### **ODL has been used to teach many things, using old and new technologies, at all levels of education, in formal and informal settings**

The main use of ODL globally has been at tertiary level. There are open universities, (ODL only) and dual - mode ones (both ODL and conventional systems). Many subjects are taught, across the arts and the sciences. Some make use of e-learning systems, and some are mainly print-based. Some rely heavily on face to face provision, and some have very little. There are many variations on the ODL theme.

Teacher education is the most common application, and has often been the main reason for initiating ODL. Many teachers are inadequately qualified and many ODL schemes have sought to upgrade them 'on the job'. Analogous approaches have been taken in the health and other sectors, though not on the same scale.

At school level, the dominant activity has been educational radio and television, though there are some open schools. There have also been schemes in the informal sector, i.e. outside institutional frameworks.

Thumbnail sketches of key areas of ODL activity follow. Examples are chosen for their relevance to Africa. More detail about some of these is in various appendices.

## Educational radio and television

**At primary level** the significant examples are based on radio. Radio programmes serve as enrichment for many children, providing them with higher quality learning experiences than their hard-pressed and often under-qualified teachers can manage. They often come with suggestions for preparation and follow up activities, and the programmes themselves can offer a great deal of interactivity. In effect the teacher/classroom helper is an ODL facilitator in this context. An attractive feature is that whilst focussed on educating children, the programmes are also a source of professional development for the teachers/helpers. USAID has funded many such projects in Latin America and Africa. Zambia is currently implementing one of these, the QQUEST project, ([www.ies.edc.org](http://www.ies.edc.org)), targeted at volunteer and unqualified teachers in community schools. In South Africa a private foundation called OLSET ([www.olset.org.za](http://www.olset.org.za)) has used radio extensively to support post-apartheid pedagogy.

*For more on QQUEST and 'interactive radio instruction', see Appendix B.*

**At secondary level** the substantial examples are in Latin America. Telesecundaria in Mexico is offered through a network of centres in rural areas where children prepare for, watch and follow up the programmes, under the supervision of local facilitators and with the support of textbooks. Telecurso, in Brazil, uses the same basic idea, but caters for under-educated workers employed by several big firms.

**At tertiary level** the key example is the Chinese Radio and Television University network ([http://www.crtvu.edu.cn/English\\_crtvu/index\\_en.html](http://www.crtvu.edu.cn/English_crtvu/index_en.html)) Their programmes are lessons given at a distance to large groups of learners in classrooms, usually studying full time. There are also printed texts. There is little formal learner support.

## Informal ODL – basic education for adults, the 'hole in the wall' and tele-centres

**Basic education for adults** has utilised ODL mostly focussed on literacy, but also on agriculture and health. Many African and Asian countries have implemented such programmes, both for their citizens in general, but also for specific groups such as nomads and refugees. Experience is mixed, but there have been significant successes where resources have been adequate.

**'Hole in the wall'** schemes are based on computers which can be accessed from the street via a 'hole in the wall'. There are many of these in India and some in Abu Dhabi and Nepal. On the other side of the wall there is a monitoring system, but users in the street are not aware of this. Several studies have indicated that without any support and with complete freedom to explore, children have acquired considerable skills completely outside any school setting. ([www.ncl.ac.uk/egwest/holeinthewall](http://www.ncl.ac.uk/egwest/holeinthewall)) The first 'hole in the wall' in Africa was installed in Kampala, during the 2007 Commonwealth Heads of Government Meeting (CHOGM).

**Tele-centres** are community facilities with Internet access, telephones etc. They were intended to provide opportunities for informal education as well as communication facilities for their communities. Unfortunately they were also expected to be self-financing, and as this has largely not materialised, many have closed down.

## Open Schools

The main experience of open schools is in Asia, the largest schemes being in India and Indonesia. They are largely print-based and students may study in their own time or attend study centres. They provide secondary level education to those who have no other access to it. Given good study materials and a strong support system, they can achieve good results, and also reach out to wider and more disadvantaged groups.

See Appendix C and [www.nos.org](http://www.nos.org)

## Open universities (entirely ODL based)

The OU is the archetypal example, seen around the world as an example to emulate. It has about 200,000 students. It offers lifelong learning opportunities in the form of undergraduate and postgraduate degrees and individual courses for personal and professional development. Learner support is extensive, with 10,000 tutors/associate lecturers, mediated by a network of regional centres and overseas partners.

See Appendix D and [www.open.ac.uk](http://www.open.ac.uk) for more information about the OU.

The majority of other open universities are in Asia. Many took their early inspiration from the OU. The largest system is in India; the Indira Gandhi National OU (IGNOU) ([www.ignou.ac.in](http://www.ignou.ac.in)) and several state based OUs have millions of students between them. Resources are largely print-based, though television and radio are used, and web-based approaches are emerging fast. Learner support systems vary.

See Appendix E for more information about OUs in Asia.

Africa has five OUs – UNISA (University of South Africa, [www.unisa.ac.za](http://www.unisa.ac.za)), and the OU's of Tanzania ([www.openuniversity.ac.tz](http://www.openuniversity.ac.tz)), Nigeria, ([www.noun.edu.ng](http://www.noun.edu.ng)), Zimbabwe ([www.zou.ac.zw](http://www.zou.ac.zw)) and Sudan ([www.ous.edu.sd](http://www.ous.edu.sd), only in Arabic). The Nigerian National Teachers Institute ([www.nti.edu.ng](http://www.nti.edu.ng)) is also ODL based.

See Appendix F for more information about OUs in Africa.

Athabasca University in Canada ([www.athabascau.ca](http://www.athabascau.ca)) is an OU, and there is a mix of public, private, and not for profit institutions offering a wide variety of programmes in the US. They don't call themselves OUs, however. In Europe the biggest player apart from the OU is UNED in Spain ( <http://www.uned.es/portal/>)

## **Dual-mode universities (with conventional and ODL systems, side by side)**

Australia and Canada have many such universities. India also has several, notably the University of Delhi. China has an increasing number of prestigious universities involved in this; they have been centrally chosen, and offer what they call 'modern distance education', making extensive use of modern technologies. The University of London's external programme is another significant example.

There are also many African examples. In Uganda, Makerere offers teacher education, commerce and science. Kyambogo University educates thousands of Ugandan teachers in ODL mode. In Kenya, the University of Nairobi has a long established facility, and Kenyatta and Egerton universities have developing ODL programmes. In Ghana, Winneba and Cape Coast universities have substantial ODL operations. The University of Zambia built in ODL from its inception. And there are many others.

There are also several examples in the health sector. AMREF (African Medical and Research Council) based in Nairobi, has used ODL methodologies to train health workers in Eastern Africa ([www.amref.org](http://www.amref.org).) They develop on the job skills mostly through print, radio and practical sessions to give hands on experience. They are also involved in nurse upgrading programmes to raise qualifications from certificate to diploma level, and then also from diploma to graduate level.

*See Appendix F for more information about African dual-mode institutions.*

## **Cross-border ODL provision: a university in one country with students elsewhere**

UNISA is active in many parts of Africa, offering its programmes to many African citizens. It has recently established a hub in Ethiopia. IGNOU offers many programmes outside India. UK universities offer many programmes to students in other countries. DFID is sponsoring some of these through the Commonwealth Scholarship Commission's ODL programme.

The Observatory for Borderless Higher Education ([www.obhe.ac.uk](http://www.obhe.ac.uk)) monitors cross-border activity and is a useful source of information.

*For a list of CSC activity, see Appendix G and [www.csfp-online.org](http://www.csfp-online.org)*

## **ODL is perceived by some as second best**

When done well, ODL outcomes bear comparison with outcomes from 'conventional' provision. The OU demonstrates this well. However ODL at tertiary level does not have a good press in some countries, notably in Africa, and the track record sometimes justifies this perception. Materials have sometimes been late, of poor quality or even non-existent. Student support has often been inadequate, and logistics and record keeping poor. Much of this is attributable to under-investment and misconceived strategic planning assumptions, such as 'ODL is cheap', 'anyone

can do it', or 'we can start tomorrow'. There can also be a kind of conservatism in some universities, which can interfere with effective ODL implementation.

Good quality assurance systems can change this, where they are fit for purpose but also enable comparisons with 'conventional' systems. Some countries and providers have very little in the way of any quality assurance system, though this is changing rapidly and should have a significant impact on both equality and perception of it.

Some countries run separate systems for quality assuring ODL and others apply a single system to all their provision. A separate QA system has the advantage is that it can be more tailored to ODL. The disadvantage is that ODL may continue to be seen as second rate, and all qualifications obtained in this way are perceived as inferior. If all provision is judged according to the same principles, then such invidious comparisons are hard to sustain on any logical basis, though prejudice may persist.

The ideal approach is therefore a system that integrates all modes, but is sufficiently flexible in terms of its interpretation. This is what has happened in the UK.

## **There are many ODL associations and agencies**

The global association is ICDE (International Council for Distance Education, [www.icde.org](http://www.icde.org)) and there are several regional ones relating to it, of which probably the most active is AAOU (Association of Asian Open Universities, <http://www.aaou.net/>). They sponsor conferences and projects. The newest such body is ACDE (African Council for Distance Education, [www.acde-africa.org](http://www.acde-africa.org) )

The Commonwealth of Learning ([www.col.org](http://www.col.org)) fosters ODL in the Commonwealth through projects/workshops and the biennial pan-Commonwealth Forum.

South Africa has an influential ODL agency called SAIDE (South Africa Institute for Distance Education, [www.saide.ac.za](http://www.saide.ac.za)) working across Southern Africa. The AVU (African Virtual University, [www.avu.org](http://www.avu.org)), based in Nairobi, is the hub of a network of African universities interested in ODL, both open and dual-mode. AVU supports them with collaborative production of learning resources and ODL capacity building. ADEA (Association for the Development of Education in Africa, [www.adeanet.org](http://www.adeanet.org)) has a working group on ODL. UNESCO and the African Development Bank seek to catalyse effective ODL via workshops, policy fora, and individual projects.

*See Appendices H and I for more information about CoL and African ODL agencies.*

## **ODL and teacher education in Africa: two current projects with great promise, involving many countries and many teachers**

There are many ODL teacher education initiatives, both past and present, far too numerous to mention. These two projects are singled out because of two distinctive and important features.

The first is that they are multi-country projects, bringing together universities with considerable ODL background from many different parts of Africa, as well as

involving non-African partners. This is enabling many perspectives and experiences to be shared. This should enhance quality, and also contribute to economies of scale.

The second is that both have a strong focus on the ways in which modern technologies can be deployed, and are significantly innovative in this regard. **TESSA (Teacher Education in Sub-Saharan Africa)** ([www.tessaprogramme.org](http://www.tessaprogramme.org)) is a consortium of universities in nine African countries (Ghana, Kenya, Nigeria, Rwanda, South Africa, Sudan, Tanzania, Uganda and Zambia) together with CoL, the OU, the BBC World Service Trust, and AVU. TESSA is developing ODL resources for incorporation in the universities' own programmes, which will happen during 2008. The materials focus on pedagogy in key primary/basic curriculum areas and foster interactive, child-centred approaches.

A website will house the materials, which will be available in both web-based and print ready (pdf) formats in nine different country versions in five languages. Once complete they will be available to anyone to use without any charge. They are thus OERs (open education resources), a very promising new development in the ODL world, with great potential.

*See Appendix J for more information about TESSA.*

**The AVU teacher education initiative.** The AVU (African Virtual University [www.avu.org](http://www.avu.org)) is hosting and coordinating an ODL teacher education project across 10 African countries (Ethiopia, Kenya, Madagascar, Mozambique, Senegal, Somalia, Tanzania, Uganda, Zambia and Zimbabwe) funded by the African Development Bank and UNDP. The goal is to collaborate in producing B.Ed programmes in maths and science for secondary teachers, with a strong focus on IT. The 10 universities and their respective ministries have agreed a broad common curriculum, and materials development is well advanced. Each institution will offer the programme under its own regulations, and the first students should begin in September 2008. The collaboration is remarkable in spanning so many different countries and teaching systems, and the linguistic divides between Anglophone, Francophone and Portuguese speaking jurisdictions.

*See Appendix K for more information about the AVU and this project.*

## Key ODL conclusions with particular reference to Africa

**ODL should be part of the solution to expanding access to HE, but it is vital to plan strategically and at scale, including materials, learner support and logistics**

ODL can enable many more students to study than a campus can accommodate. It is hard to imagine Africa constructing many more campus universities, given the

resources that would require and the lack of people to staff them. Large scale, affordable and feasible approaches are needed. ODL must surely be part of this, and indeed many countries are considering ODL options.

Kenya illustrates a strategic challenge well. It is exploring the concept of an OU of Kenya. It already has ODL activity at the University of Nairobi, and ODL is developing at Kenyatta and Egerton. JKUAT (Jomo Kenyatta University of Agriculture and Technology) has a long standing partnership with the University of Sunderland, through which many of its staff and other Kenyans are studying IT in ODL mode, some of them supported by CSC. Both AVU and ACDE have their headquarters in Nairobi. There is therefore much ODL experience in Kenya.

Kenya ideally needs a solution which deploys more ODL at HE level in ways that achieve economies of scale, deliver high quality materials, learner support and logistics and maximise opportunities for students. Kenya has three broad options.

- (a) It could set up a new institution which could compete with the others. The new OU would develop its own regional infrastructure, alongside the regional structures that the three universities already have or are creating all over Kenya.
- (b) A second option would be to coordinate what is happening in the other institutions by creating a single regional infrastructure (centres, administration, IT) which all of them could use.
- (c) A third option would be to try and concentrate all ODL in one place and try and stop the others doing anything.

The point here is not to choose a solution for Kenya but to illustrate the need for strategic thinking and some of the issues that will arise.

### **ODL is an excellent professional development tool – health, education, business...**

ODL enables professional development to occur in regular interaction with professional practice. This facilitates innovation and change in the workplace from day 1, so there is no need to wait until a seconded member of staff returns before getting any benefit from their studies. The change in practice is also supported by discussions with fellow students, and whoever is providing learner support.

A key concern in many African countries is to retain and develop skilled people in rural and remote areas. ODL modes of professional development enable people to stay wherever they are, and make it less likely that they will be uprooted by their studies.

In Africa, ODL professional development has been extensively used for teachers. It is also applicable to many other sectors, and has been used in health, agriculture, IT, business studies, veterinary science, and development studies, amongst others. Countries all over the world have lifelong learning needs, and Africa is no exception. ODL is a key tool, and to be encouraged, provided, as always, it is done well.

### **OERs (open education resources) offer great opportunities**

OERs represent an unprecedented opportunity for Africa. There is sufficient access to the Internet to enable many educators in many countries to search the Web to see what might be available that they could use.

Furthermore there are dedicated OER sites designed to be of assistance. CoL makes materials available through WikiEducator ([www.WikiEducator.org](http://www.WikiEducator.org)) which anyone can use and modify for their own purposes. The OU has recently set up OpenLearn (<http://openlearn.open.ac.uk/>) which contains many OU materials and is free to use. TESSA will shortly be launching its materials website ([www.tessafrica.net](http://www.tessafrica.net)) and this will make teacher education materials available to anyone in Africa. The AVU is active in the OER movement, and aspires to make ODL OERS widely available.

A great advantage of many OERs is the ease with which they can be adapted and modified. This has two beneficial effects. One is that academics can make the materials their own by modifying them, so there is less of a 'not made here' syndrome, and the other is that it exposes them to well-constructed ODL and serves as a capacity building experience should they wish subsequently to develop their own.

### **ODL has considerable potential for enriching secondary education as participation rises, especially by using OERs**

Many African countries are moving towards universal secondary education. This is an inevitable consequence of universal primary education, as this has created a huge demand for secondary provision. This means that more teachers, suitable professional development, and appropriate classroom resources are all needed.

Open schools are one option (see Appendix C). It could be that secondary school children with no access to a secondary school could be given access to places where they could study using ODL resources, and get some help from each other and some support from someone who could help them. Good resources would be vital.

Where secondary schools exist, however rudimentary, many teachers will be primary trained and need professional development to equip them for secondary teaching. ODL would be invaluable here. They could train alongside their teaching, and good courses could relate very strongly to their classroom contexts. There is however a risk that universities and other providers of such training may focus on the academic content and pay insufficient attention to the pedagogy. When this happens teachers can be discouraged by the difficulties of content they will never directly use, and at the same time get insufficient help with classroom practice. ODL can help with both of these, but the providers determine the programmes, and it is very helpful if they begin by setting out the learning outcomes that are really needed. The AVU teacher education initiative ([www.avu.org](http://www.avu.org) and Appendix K) could be of great help here.

Whether it is an open or a regular school context, good resources for the children to learn from are a great help. (They may also help the teachers understand the subject matter better). If these are high quality ODL resources, they will be particularly valuable. There is a project under discussion between the BBC, the British Council, DFID and the OU, called OLBA (Open Learning Bank for Africa) which aims to provide just such a resource bank. If this materialises, it could be very useful.

## **Educational radio has much to offer at many levels, and perhaps television too**

It is very clear that educational radio can be very helpful. It can augment what a teacher can offer, whatever their qualification levels, and it can bring new ideas and approaches to the classroom. In situations where the teacher is not far ahead of the children, both can learn together in a non-threatening way, and in situations where the teacher is on top of the content, it can still enrich their work. It does not have to be live transmission – it can equally well be on cassette/CD/DVD – it depends on what works best in individual circumstances.

Television can also be very useful, for similar reasons, but creates many more cost and logistical problems. Both of them can also be used as part of professional development training programmes, perhaps by requiring teachers to keep records of what happens, and then reflecting on this in some structured way.

## **Some opportunities for ODL networking and project involvement should be taken**

ODL has many more applications than teacher development, and academics and university managers can benefit very much by tapping into networks that already exist, by taking advantage of what has already been done, and by joining in projects and initiatives. There are ODL networks to join, (see Appendix I) and pan-African networks such as ACDE and AVU. There are projects to join in with, such as TESSA, and there are developing networks around OERs. All these provide for rich professional development of the people concerned, and this in turn gives them great opportunities for enhancing their professional work.

In many African countries there are alumni of distance learning programmes and also current students. One such group are the distance learning Commonwealth scholars, of whom there are now several hundred. They have experienced ODL as students, and many of them plan to become ODL practitioners in their own contexts. CSC is fostering some networks, and there is considerable scope for taking this kind of interaction further, as a contribution to strategising ODL in their contexts.

## **Improving connectivity and Internet access are very facilitative of ODL practice**

The potential for deploying ODL indicated above is much enhanced and facilitated by connectivity and the Internet. It is now possible for academics to connect with others in many different places, to access resources more readily, and to work on new initiatives with others. They can pass this on in their teaching to many others, whether or not their students have the same connectivity options. They can use whatever technologies students have to create learning materials and learner support for them.

## Key issues for national governments in relation to ODL

Plan strategically, and at scale, coordinating across institutions especially in relation to local centres, ICT provision and use of educational radio

Identify the large scale needs for professional upgrading – teachers, health workers, agricultural sector, and use ODL for in-service training

Explore scope for enriching secondary education through ODL resources

Encourage participation in national and international collaborative networks and projects, and look for relevant OERs

Build ODL into national frameworks for quality assurance

Acknowledgement: This briefing paper was commissioned by DFID and written by Professor Ann Floyd.

## Appendix A: Open Education Resources (OERs)

OERs were mentioned in connection with the TESSA project. There are many other examples under development. CoL is particularly active in this area.

Most current learning resources are copyrighted, but there is a committed movement trying to change this and to make as many resources as possible freely available online without any copyright implications. Such resources are called OERs (Open Educational Resources). The vision is of a community of resource developers all building on each others work and sharing the results with anyone interested, in exactly the same way as happens with open source software.

A licensing code of practice called 'Creative Commons' has grown up around the OER movement, covering 'attribution' and 'share-alike'. Attribution means that the original source of materials should always be acknowledged. Share-alike means that any changes or new uses should be shared with the OER community. This code of practice is not enforceable, but it does give guidance, and is widely used. There is a lively debate about whether any form of licensing is appropriate, the alternative being simply to allow use without letting anyone else know. Both can easily co-exist.

OERs can be used by anyone or any provider, in all programmes, anywhere - in classrooms and lecture theatres, on recommended reading lists, and to accelerate curriculum planning. But they are a particularly significant opportunity for ODL, whether they are used exactly as they are, or transformed into self-learning materials. OERs can save a great deal of time and expense and enrich curricula at the same time. Here are some examples.

**TESSA** ([www.tessafrica.net](http://www.tessafrica.net)) goes live at the end of April 2008

**African Digital Library** [www.africandl.org.za](http://www.africandl.org.za) This is a collection of electronic books (eBooks) that can be accessed and used free-of-charge by any person living on the African continent. Individuals can access the library from any PC that is connected to the Internet, but he/she needs to register and be living in Africa.

**WikiEducator** ([www.wikieducator.org](http://www.wikieducator.org)) this is a CoL initiative, based very much on the approach taken by Wikipedia. It is a collaborative network that is developing free computer-based learning materials, and also building capacity to create OERs.

**OERs from the Open University** <http://www.open.ac.uk/openlearn/home.php> This is a subset of OU learning materials made freely available online to anyone who wishes to make use of them. This may be as individual learners, as teachers, or curriculum designers.

## Appendix B: Interactive radio and QQUEST

Interactive Radio Instruction (IRI), is a common term for radio based ODL for children. The radio becomes the teacher for the duration of the programme. Children and teacher/facilitator listen together and do whatever the speaker asks them to do – sing, clap, recite, answer questions, listen to a story, and so on. Usually there are supportive booklets that advise on preparation and follow up work.

The model is very similar to that used by BBC Schools in the UK for many years after the war. The initial motivation was much the same too, namely to enhance the quality of education for Britain's children at a time when many teachers were 'emergency-trained' and books and resources were in chronically short supply. Even when prosperity increased, the educational added value was evident, and the provision continued for many years.

In South Africa post 1994 there was a similar urgency to enhance education, and OLSET (Open Learning Systems Education Trust ([www.olset.org.za](http://www.olset.org.za))) took a very similar approach, which still continues with considerable success.

IES (International Education Systems [www.ies.edc.org](http://www.ies.edc.org)) has established systems in many developing countries, all funded by USAID. In Africa there are systems in DRC, Ethiopia, Ghana, Guinea, Madagascar, Malawi, Mali, Namibia, Nigeria, Somalia, Sudan Tanzania, Uganda and Zambia. There are systems in India, Indonesia, Latin America, the Caribbean, and in several other places. The Zambian scheme is called QQUEST, and is used here to illustrate the general model.

**IRI in Zambia (QQUEST)** reaches children in many schools. In Zambia there are government schools, which are centrally funded, and community schools, which depend on their own local resources. Zambia's population is widely scattered and many children live too far away from a government school to attend it on a regular basis. In many such villages, the local community has set up a school and staffed it with unqualified volunteers, who give of their time and are often reimbursed in kind rather than in cash. QQUEST has targeted both kinds of schools.

The programmes have been developed in close collaboration with the Ministry, and they are broadcast through the government's Education Broadcasting Service. Programmes are typically 30 minutes long, and there are 100 or more for each of the six primary school levels, based on the Zambian primary school curriculum. They include a soap opera strand, called 'Learning in Taonga Market' and they also cover lifeskills topics in five-minute segments, covering topics such as HIV/AIDS, and nutrition. Booklets accompany the programmes, and provide pre- and post-programme activities.

**Potential for IRI approaches** remains considerable. It is inexpensive when done at scale, and once the programmes are made they can be re-used for several successive cohorts before becoming out of date. There is substantial evidence to demonstrate its effectiveness. Considerable research has been done by IES and others, much of which is captured in a Toolkit prepared for the World Bank in 2005, entitled 'Improving Educational Quality through Interactive Radio Instruction - A Toolkit for Policymakers and Planners'

## Appendix C: Open Schools

The main experience of open schools is in Asia, and is at secondary level. Schemes are largely print-based and students may study in their own time or attend study centres. They are therefore a means of providing secondary level education to those who might otherwise not have access to it, and given good study materials and a strong support system, they can achieve good results, reaching out to wider and more disadvantaged groups. The largest schemes are in India and Indonesia.

In Africa there have been a number of such initiatives over the past 50 years, most of which have never really taken off. However, universal secondary Education (USE) is now an aspiration in several African countries, so the use of open schools in support of this is could be a valuable part of national strategies. Recent schemes in Namibia and Botswana may be pointing the way.

**The National Institute of Open Schooling, India (NIOS)** ([www.nos.org](http://www.nos.org)) was established in 1989. It provides learning opportunities at secondary and senior secondary level, across India. It is a large-scale operation, (though small in the Indian context) with 290,000 enrolments in 2006-7. About 2/3 of the enrolments are boys. Students collect learning materials (mostly print) from designated centres, based in schools all over India. They can also attend these centres to study independently and to get assistance.

NIOS offers some accreditation itself, notably the Open Basic Education Certificate. This is open to children below 14 years of age. At this level, girls are in the majority, so they clearly drop out as they get older. In 2006, 129,000 obtained this certificate, of whom about 70% were girls. Students can and do take the regular public secondary examinations when they wish. Success rates are not particularly high, but it is an achievement to have studied in these circumstances at all. In 2007, 91,000 students sat the secondary examinations, but only about 35,000 were successful. At the senior secondary level, there were about 84,000 candidates, of whom about 29,000 obtained senior secondary certificates.

Most of NIOS' students are in India, but at the moment they also have about 800 in the United Arab Emirates, and about 1400 in Nepal.

**Elsewhere in Asia**, Indonesia also has an Open School system. As in India, its focus is at secondary level, and it was established because of the pressing need to expand secondary education in a context where there were insufficient teachers. South Korea has a similar system. The OUs in Bangladesh, China and Pakistan have all used their systems to offer school-level opportunities.

**Africa** has seen various school-level initiatives. In central Africa, Malawi, Zimbabwe and Zambia set up study centre schemes in the 1960's, but these never really took off. However, there is now renewed interest in open schooling, as USE's importance grows, the key examples being BOCODOL (Botswana College of ODL) and NAMCOL (Namibia College of Open Learning). Both BOCODOL and NAMCOL have systems of study centres and support significant numbers of students in their contexts (about 7000 in Botswana and about 25000 in Namibia). Students take public examinations along with all students, and success rates are encouraging.

## Appendix D: The Open University ([www.open.ac.uk](http://www.open.ac.uk))

The OU was founded in 1969 and enrolled its first students in 1971. It has reached over two million people since then, and currently has about 140,000 undergraduate and 19,000 postgraduate students. A further 20,000 students are studying courses at OU-validated institutions. Several thousand of its students are outside the UK.

It teaches a broad curriculum, including mathematics, science and technology, humanities, social sciences, education, modern languages, law, health, social care, and business/management. The curriculum is modular, and students can study individual courses for personal or professional interest, or combinations of courses for bachelors and masters degrees. It is sometimes assumed that it is not possible to teach science or languages via ODL, or to engage in the development of professional practice. The OU's experience shows that all these can be done well.

The learning materials are prepared by course teams, led and contributed to by OU academic staff, but also making extensive use of consultant authors. Some are from universities in the UK and elsewhere, and some are from a variety of professional sectors – health, education, management, IT, environment, Law, social work, etc.

The OU uses a wide range of technologies in its teaching. The choice of technologies is governed by their suitability for the content in question and by the likelihood that prospective students have easy access to it. Thus the OU began in 1971 with print, black and white TV and radio, while now in 2008 it makes extensive use of the Internet and DVDs alongside print and other media. Students can handle all their OU transactions online, and each of them has access to a personal webpage containing their study records. There are many online discussion fora, organised by the students themselves, and many others moderated by associate lecturers. There is extensive access to online library resources.

Learner support in the UK is organised through 13 regional centres – Belfast, Birmingham, Bristol, Cambridge, Cardiff, East Grinstead, Edinburgh, Leeds, London, Manchester, Newcastle, Nottingham and Oxford. Each centre has academic and administrative staff, and one of their key roles is to recruit, train and quality assure the work of associate lecturers (formerly tutors). The associate lecturers are assigned to a group of 20 or so students on a specific course and their key role is to mark students' continuous assessment (known as TMAs – Tutor Marked Assignments) in constructive ways. As well as giving grades they give a great deal of feedback, and in the OU this is seen as an important part of the teaching and learning process. Associate lectures also interact with students in other ways, both as individuals and in groups, dealing with phone calls and email queries, moderating online discussions and holding face to face sessions.

Apart from organising the student-associate lecturer interactions, the regional centres are also an important source of other forms of support. They provide advice on course choice to current and prospective students. They help with careers advice, and help to find solutions for students when personal difficulties interfere with their studies.

All this adds up to what is widely regarded as the world's premier ODL institution. More than this, it ranks highly amongst UK universities generally. The UK's Quality Assurance Agency (QAA) oversees the OU along with all other UK universities, and ranked its teaching as 'excellent' in 17 out of 25 subjects assessed in its system. The OU houses four HEFCE funded centres for excellence in teaching and learning. The UK's national survey of student satisfaction has been run three times so far, and the OU has emerged top of the list on all three occasions. It is middle-ranking with regard to research, with some world class departments, notably in geography and earth sciences.

The OU works with many partners, including national bodies like the BBC and the British Council. Many large companies and public sector agencies use it for professional development for their staff.

From its inception it has worked with the BBC. For about 25 years the focus of the partnership was on the production of television and radio programmes for students, but as replay and recording devices became available the emphasis shifted towards audio and video cassettes, and then to CDs/DVDs. This was the most public aspect of the OU, and many thought that this was its main mode of teaching. In fact BBC output never constituted more than 10% of student study time. Most of the OU's teaching has always been done through other media (print, DVD, Web-based). The main business of the partnership now is on the production of series such as COAST, Child of Our Time, etc. which are jointly planned initiatives to reach a much wider community than registered students, whilst also giving them the opportunity to find out more if they wish. The OU maintains a website designed for this ([www.open2.net](http://www.open2.net))

The OU's international activity includes direct teaching, the development of ODL resources in collaboration with others, research students and projects, and ODL capacity -building. With regard to direct teaching, there are students in many different countries, often with support from in-country agencies and the facilities of the British Council for meetings, examinations etc. The most salient current example of collaborative development of ODL resources is the TESSA project ([www.tessaprogramme.org](http://www.tessaprogramme.org)) described in Appendix J. OU research activity ranges across many areas, including the practice of ODL itself. It has assisted with ODL capacity building in many developing countries, notably India, Pakistan, Zimbabwe, Nigeria and Tanzania.

In addition to this the OU is making many of its ODL learning resources available for any other institution or individual to use, i.e. as OERs (open education resources, see Appendix A and <http://www.open.ac.uk/openlearn/home.php>)

The OU thus demonstrates the power and effectiveness of ODL methodologies when there is a clear system paying due attention to ODL materials and learner support. It has always operated on a large scale, and exemplifies the value of this too. In addition, it is an exemplar of the value of integrating ODL provision into the mainstream of quality assurance. Since the QAA was established the OU has been subject to its processes like any other institution, and has repeatedly shown it is amongst the very best with regard to teaching and learning.

## Appendix E: Open Universities in Asia

Asia has a great deal of ODL activity, and is the home to most of the world's open universities. There is a thriving association that networks them very effectively – the AAOU (Asian Association of Open Universities) ([www.aaou.net](http://www.aaou.net)) Membership is open to dual mode universities too, and there is a lively and well-attended annual conference hosted in turn by each institution.

**India:** the largest system is in India, where the Indira Gandhi National OU (IGNOU) oversees 8 or so state based OUs. The plan is eventually to have an OU in each of India's 29 states. The numbers of students are very large – IGNOU has over a million undergraduates and over 500 thousand postgraduates, and some of the others have substantial numbers too. As well as the open universities, many others, such as the University of Delhi, are dual mode with substantial ODL operations. The Indian OUs are largely print-based, though they also deploy television and radio and are experimenting with web-based approaches. Their typical provision begins at secondary level, and ends at degree level, apart from IGNOU which also has postgraduate programmes.

IGNOU also engages in substantial cross-border activity, predominantly in Africa.

**China:** the approach in China has been different, as it makes extensive use of television. The key provider until recently has been the China Television and Radio University Network. The client group for both open and dual mode universities in the first instance was people who for whatever reason, had not had access to the campus-based universities. The motivation was therefore to increase access. More recently, China is actively developing 'modern distance education' involving its prestigious universities and using modern technologies extensively.

**Elsewhere in Asia** there are OUs in Bangladesh, Indonesia, Hong Kong, Pakistan, South Korea Sri Lanka, and Thailand. Singapore has recently set one up, and Malaysia also has an evolving ODL framework.

Many Asian OUs are very large. Approximate numbers for some of them are in the table below.

Country	University	Undergraduate ODL nos (est)	Postgraduate ODL nos (est)
India	Indira Gandhi National OU	1,500,000	540,000
	Ambedkar OU, Andra Pradesh		
	Bahasaheb OU, Gujarat	1,000,000	40,000
	Kota OU, Rajasthan	15,000	
	Maharashtra OU	400,000	
	Nebaye Subhas	96,000	
Pakistan	Allama Iqbal OU	1,800,000	
Sri Lanka	Sri Lanka OU	25,000	
China	Central Radio and TV University	700,000	
Bangladesh	Bangladesh OU	40,000	

## Appendix F: ODL in Africa

South Africa stands out for the scale and scope of its ODL activity. There are also several open and dual-mode universities and some open school initiatives (see Appendix C). There are regional and pan-African networks (see Appendix I). And there is the African Virtual University, which is in the process of re-establishing itself after a difficult period (see Appendix K). This Appendix focuses on higher education and is in 3 sections – South Africa, African OUs, and African dual-mode universities.

### **South Africa**

In South Africa tertiary ODL (usually called distance education) is substantial. Over 40% of its higher education students study in this mode. It dwarfs anything happening elsewhere on the continent. The key institution is UNISA ([www.unisa.ac.za](http://www.unisa.ac.za)), which teaches only in ODL mode, and offers a wide range of courses at undergraduate and postgraduate level. But there are several dual mode universities as well, mostly focussing on in-service course for teachers.

The importance of distance learning to the development of the new South Africa was well-recognised from the beginning. In 1992 SAIDE ([www.saide.org.za](http://www.saide.org.za)), the South African Institute for Distance Education was established as an independent educational trust to promote this and to set high standards. Soon after, SAIDE was tasked with commissioning and overseeing an international audit of all ODL provision in South Africa. The audit demonstrated the enormous scale of ODL (over 200,000 students in 2001) and identified many issues, on which SAIDE and others have been working ever since.

SAIDE has made an enormous contribution to ODL capacity development in South Africa and beyond. A particular contribution has been a comprehensive framework for quality assurance and standards in ODL which are relevant far beyond South African borders. The framework also enables ODL provision to be seen as part of overall provision, rather than something separate, which is also very helpful.

### **Open universities elsewhere in Africa**

There are four other substantial open universities in Africa - in Tanzania, Zimbabwe, Nigeria, and Sudan. There is also the National Teachers Institute in Nigeria. And there is a small private OU in Zambia. Madagascar has a Centre National de Télé-Enseignement de Madagascar, which is the only example in the Francophonie.

**The OU of Tanzania** ([www.openuniversity.ac.tz](http://www.openuniversity.ac.tz)) was created in 1992, having begun its work as a department within the University of Dar es Salaam (UDSM). OUT has about 20,000 students on its books, though less than half of them are actively studying. It has Faculties of Education, Science, Social Studies and Arts, and Business Management, and an Institute for Continuing Education, but its key audience has always been teachers. It has 25 regional centres, and is in the process of strengthening their staffing so that more learner support can be provided locally.

OUT faces many challenges, with limited resources. It has been hard to produce good materials. Many were sourced from the University of Nairobi in the first instance, but these are now outdated. It has however been a key partner in TESSA (see Appendix J) and will be making extensive use of these state of the art materials in future programmes. It is also an AVU partner.

Learner support is a major challenge. A key constraint is that OUT's systems are still very centralised. Marking is mostly done in Dar by a small number of academic staff, even when there are hundreds of students. The result is delay, and scripts and students records can and do go astray. Student feedback is therefore often too late to make any real difference, and academics are so busy marking that they have no time to work on alternative approaches. OUT is breaking out of this now, and it is running a pilot of distributed marking in two regions at the moment. This will be of huge benefit to OUT and its students.

OUT's experience is instructive and not unique to them. Large scale ODL systems usually require distributed marking to secure timely turnaround, and many Senates resist this initially. Distributed systems entail tutors/associate lecturers/affiliate staff doing at least some of the marking. This in turn means finding suitable people, clarifying their roles, and then ensuring that they mark to broadly similar standards. There are not many people with high academic qualifications in rural upcountry Tanzania, and it took OUT's Senate a long while to come to terms with the idea that good markers must understand the subject matter, and should have good pedagogic skills, but that they do not have to have PhDs. Once they realised that they could draw on a much bigger pool, distributed marking became possible. The challenge was then that of quality assurance, on which they are now working. The key will be good marking schemes, tutor training, and monitoring.

**The National OU of Nigeria (NOUN)** ([www.noun.edu.ng](http://www.noun.edu.ng)) is Nigeria's third attempt to establish an OU, and was set up in 2004. It enrolled 32,400 'pioneer' students, and has set up 20 study centres across Nigeria. It has 50 different programmes on offer, from certificate to degree level, in several different areas, including science and technology, law, and education. It has a system of tutors (called facilitators) for learner support. It is too soon to say how successful NOUN will be, but the building blocks are in place and they have had a great deal of support from CoL.

**The OU of Sudan** ([www.ous.edu.sd](http://www.ous.edu.sd) only in Arabic) is also very new, having been established in 2003. It is focussing very much on teacher education, and has been set up as a partnership between the Ministry and several other universities. It is a key partner in the TESSA project, and has also benefited from an HE partnership scheme with the OU UK, and the National Teachers Institute in Nigeria.

**The Zimbabwe OU (ZOU)** began as a department within the University of Zimbabwe, but was established as an independent open university in 1999. In 2004 it had about 18000 students on a variety of courses, and supported them through a network of 10 regional centres. Up to date information is not available.

**The Centre National de Télé-Enseignement de Madagascar** was set up in 1992. At its inception it used television, radio and books, and had about 7000 students. It is

unusual for a Francophone country to be engaged in ODL at all and it is not clear what the current situation is there

**National Teachers Institute, Kaduna, Nigeria**, ([www.ntinigeria.org](http://www.ntinigeria.org)) NTI was established in 1976 with a mandate to provide in-service teacher education programmes at all levels of the educational system in all the states in the Nigerian Federation. Its provision ranges from certificates to postgraduate diplomas. It operates on a very large scale. For example, about 470,000 primary teachers studied an in-service upgrading programme at NTI between 1999 and 2005. It has about 350 study centres across Nigeria. It is another TESSA partner.

### ***Dual mode universities in Africa***

It is not possible to make an exhaustive list of ODL activity in Africa's many universities. There is almost certainly some activity in most countries, though markedly less so in the 'Francophonie'. This section can do no more than give some illustrative examples and it features Uganda, Kenya, Ghana, and Zambia.

#### **Uganda**

There are two universities active in ODL. Some years ago there was talk of an OU for Uganda, and these discussions have recently been revived. Both universities are TESSA and AVU partners.

**Makerere** [www.mak.ac.ug](http://www.mak.ac.ug) launched its ODL provision (known as the External Degree Programme) in 1991. It has three bachelors' programmes - in Commerce, Education and Science. These are run through Makerere's Institute for Adult and Continuing Education, which works in partnership with the relevant faculties. The academic input into both the campus based full-time programmes and the external ODL part-time programmes comes from the faculties, while the Institute provides academic and logistical expertise in ODL. This is quite a common model in dual-mode institutions.

**Kyambogo** ([www.kyambogo.ac.ug](http://www.kyambogo.ac.ug)) has a long tradition of ODL for teacher education. It has a Department of Distance Education, which is in the process of being upgraded to an autonomous Institute, as at Makerere. Uganda has a substantial 'cascade' infrastructure that Kyambogo uses to facilitate its ODL work, called the Teacher Development Management Scheme. At the top of the cascade is Kyambogo itself. The next layer is designated teachers colleges. Below that there are clusters of primary schools, with one school heading each cluster. This makes it very easy to deliver in-service teacher education programmes at primary level throughout Uganda and Kyambogo makes extensive use of this.

#### ***Kenya***

There are three universities active in ODL. Alongside this there is a working group considering the establishment of an OU for Kenya. Jomo Kenyatta University of Agriculture and Technology is also involved in ODL, albeit in a different way, through hosting and supporting a CSC-sponsored set of students on two IT programmes offered by the University of Sunderland (see Appendix G). In addition to these, there

is substantial activity in the health sector, led by AMREF working with the medical and nursing schools and the Ministry of Health. The Ministry of Education has also been active in distance education in the recent past, a significant recent programme being PRISM, (Kenya Primary School Management Project), funded by DFID.

**University of Nairobi** ([www.uonbi.ac.ke](http://www.uonbi.ac.ke)) ODL has a long history here, beginning with extra mural work in 1953. It is based in the School of Continuing and Distance Education within the College of Education and External Studies at the Kikuyu campus. There are eight regional centres and there are certificate, diploma, undergraduate and postgraduate courses for teachers, and possibly some other programmes. It is an AVU partner.

**Egerton University** ([www.egerton.ac.ke](http://www.egerton.ac.ke)) Egerton established a College for Distance Education five or so years ago. Its focus is also on teacher education. It has three regional centres, and plans to establish more. It is a TESSA and an AVU partner.

**Kenyatta University** ([www.ku.ac.ke](http://www.ku.ac.ke)) set up an Institute of Open Learning in 2002. The programmes offered by the university through open learning mode of study are the same as those offered to campus students, and they include Diplomas, Bachelors degrees,, Postgraduate Diplomas and Masters Courses. Kenyatta has eight regional centres that offer academic and administrative support to its students.

**AMREF (African Medical and Research Foundation)** ([www.kenyamref.org](http://www.kenyamref.org) and [www.amref.org](http://www.amref.org)) has substantial in-service programmes for nurses and other health workers. This is mainly in Kenya but also elsewhere in East Africa. They work in partnership with the Nursing Council of Kenya, Accenture, the Kenya Medical Training Colleges, several nursing schools and the Ministry of Health. They have about 100 centres across all of Kenya. One key aim is to upgrade 22,000 Enrolled Community Health Nurses (KECHN) from 'enrolled' to 'registered' level within 5 years, beginning in 2005. 70% of Kenya's nurses are 'enrolled' and they are the key providers of primary health care for communities across Kenya. ODL is being used effectively to upgrade them in situ.

## **Ghana**

**Winneba University of Education**, ([www.uew.edu.gh](http://www.uew.edu.gh)) was established in 1992 as a University College, working with the University of Cape Coast. UEW's mandate is to train professional teachers and educational administrators for the pre-tertiary education sector in Ghana. It currently has over 11,000 full time students and about 5,400 Distance Education students. It has 12 Regional Study Centres throughout Ghana. Winneba and Cape Coast are both TESSA partners.

## **Zambia**

**University of Zambia** ([www.unza.zm](http://www.unza.zm)) was set up as a dual mode institution in 1961. Like many others, it focuses on teacher education. It offers bachelors programmes in this mode, though it currently requires campus attendance for the final year. It also oversees the work of the Zambia National In-service Teachers College, which offers large scale training for primary teachers and also for some community volunteers (see Appendix B). It is a TESSA and an AVU partner.

## Appendix G: Commonwealth Scholarship Commission & open/distance learning scholarship programmes

CSC began offering scholarships for Masters programmes delivered by ODL in 2002. CSC first selects the programmes and then sponsors between 6 and 30 students on each one. Development impact is a key criterion. All the programmes are examples of ODL-based and in-service professional development. To date nearly 1000 students have been supported in this way, with considerable success. The programmes and key countries are summarised in the table below.

University	Masters Programme area	Main countries
Birkbeck	Structural Molecular Biology	Several
Cardiff	Palliative Care	Several
Institute of Education, London	Education and International Development	Pakistan, East Africa
Leeds Metropolitan	Health Promotion Facilities Management Public Health	Zambia Tanzania Gambia
London South Bank	Education for Sustainability	Southern Africa
London School of Hygiene and Tropical Medicine	Epidemiology Infectious Diseases Public Health	Sub Saharan Africa
Loughborough	Water & Waste Engineering/ Environmental Management	Various
Open University	Public Administration Development Management	Ethiopia Sub Saharan Africa
Royal Veterinary College	Veterinary Epidemiology and Public Health	
School of Oriental and African Studies	Agricultural Science Sustainable Development Public Policy and Management	SADEC countries Sri Lanka. Various
Staffordshire	Sustainable Development	India
University College London	International Primary Health Care	South Africa (Eastern Cape)
University of Bath	Construction Management	
University of Bolton	Technical and Vocational Education	Zambia
Edinburgh	International Animal Health	SSA, working with Makerere, Uganda
Manchester	Bioinformatics	
Stirling	Aquatic Resource development	Bangladesh
Sunderland	Information Systems Engineering IT Management	Both in Kenya, with JKUAT
Ulster	Biomedical Science	

More information can be obtained from CSC and [www.csfp-online.org](http://www.csfp-online.org)

## Appendix H: Commonwealth of Learning

The Commonwealth of Learning (COL) ([www.col.org](http://www.col.org)) is an intergovernmental organisation created by Commonwealth Heads of Government in 1987 to encourage the development and sharing of open learning/distance education knowledge, resources and technologies. COL's fundamental purpose is to help developing Commonwealth nations to improve access to quality education and training through ODL. It is the world's only intergovernmental organisation dedicated solely to promoting and delivering distance education and open learning.

It maintains a useful resource on ODL on its website called 'Knowledge Finder' ([www.col.org/colweb/site/pid/2919](http://www.col.org/colweb/site/pid/2919)).

COL's current annual budget is about CDN\$4 million per annum, all funded by Commonwealth governments. The major donors are Canada, UK, India, New Zealand, Nigeria and South Africa, but 38 Commonwealth countries contribute. COL's expenditure profile across the regions of the Commonwealth shows that the highest expenditure over the last year has been the Africa region at 17.6%; the commitment in Asia was 7.7%; the Caribbean 3.3% and the Pacific 0.6%. By far the biggest expenditure was on Pan-Commonwealth work at 70.8% which, through a rough rule of thumb, can be broken down by the regional % figures quoted.

COL has a programme structure which currently contains 3 sectors and 15 initiatives:

Sector	Initiative
<b>Education</b>	Quality Assurance
	Teacher Development
	Open Schooling
	Higher Education
	eLearning for Education Sector Development
<b>Learning For Livelihoods</b>	Learning and Skills for Livelihoods
	Rural and Peri-urban Community Development
	National/International Community Development
	Virtual University for Small States of the Commonwealth
	Transnational programmes
<b>Human Environment</b>	Gender and Development
	Health, Welfare and Community Development
	Environmental Education
	Good Governance
	Educational Use of Mass Media and ICTs

The rationale for each is informed by the international development architecture of the Millennium Development Goals. The priorities of Commonwealth Governments also influence the work of the sectors.

COL also collaborates with other organisations and projects wherever this adds value to its mission. For example, it is a partner in TESSA (See Appendix J) and has facilitated TESSA uptake within the Commonwealth, notably in West Africa. Another example is its work with NIOS in India on open schooling (see Appendix C).

## **Education Sector activity**

COL does much of this work through advocacy in national policy forums and the provision of professional advice about national/institutional policy and strategies. It also provides ODL capacity building workshops. It is an active proponent of OERs (open education resources), most notably through WikiEducator (see Appendix A)

**Quality Assurance** is a key focus in many countries. COL engages with national governments and institutions in the development of policy and implementation frameworks at national and institutional level. ODL approaches need to be incorporated in overall strategies, and COL is active in supporting this.

**Teacher development** is a central concern for many, both in terms of quality education at basic level and in terms of the increasing need for expansion at secondary level. COL is a powerful advocate of the crucial role of ODL in this, arguing both that conventional approaches cannot meet the challenges and also that ODL is often the best solution in any case. Its involvement in TESSA indicates this.

**Open/Alternative Schooling** is a growing area of interest (see Appendix C). COL has worked closely with NIOS in India, especially on facilitator training. It will be able to support other developments especially in Africa, where there is a resurgence of interest as USE (Universal Secondary Education) becomes the new mantra.

**Higher Education** is also experiencing pressures for growth in many Commonwealth countries. ODL has an important role to play. In Africa, COL has explored opportunities for collaborating with the AVU, whose central goal is to foster ODL in African universities (see Appendix K).

**eLearning and ODL for Education Sector Development** refers to COL's efforts to mitigate the effects of the digital divide.

## **Learning for Livelihoods Sector activity**

COL concentrates on building partnerships with national and international organizations involved in agricultural and vocational education for livelihoods. Many African educators, despite the challenges of access, are interested in exploiting the digital ICTs for development in relevant and sustainable ways. The challenge is to develop self-directed learning models for resource-poor communities to improve their livelihoods and to promote development that is culturally and contextually relevant, financially feasible, economically viable, and socially acceptable.

**Learning and Skills for Livelihoods** aims to use technology mediated learning to increase literacy and, at the same time, to improve livelihoods. In this work COL seeks to develop consortia of strategic partners representing multiple sectors.

**Rural and Peri-Urban Community Development** extends an earlier programme (Life-Long Learning for Farmers) to these communities, which are often ignored. The goal is to develop holistic poverty-reduction programmes.

**National/International Community Development** focuses on building ODL capacity in agricultural education, research and policy making bodies.

**VUSSC (Virtual University for the Small States of the Commonwealth)** aims to develop the human resource capacity that small states require to ensure that they are able to participate effectively in the global economy. By working together, they can address their common educational challenges, effectively utilising their limited resources. COL's VUSSC network is facilitating collaborative development and the sharing of Open Educational Resources (OERs) in support of this important goal.

**Human Environment Sector activity** has mainly focussed on radio, television and village cinema. Anecdotal evidence strongly supports the value of such initiatives, but evaluation is notoriously difficult. However COL now has a substantial programme of surveys and reports that hopefully will demonstrate impact over the long term.

The topics covered are vital - eradicating killer diseases such as malaria, HIV/AIDS, and diabetes; the continued barriers to the achievement of girls and women in education; developments in the climate change landscape; and adding value to institutional good governance efforts.

**Gender and Development** is a cross-cutting theme in all of COL's work. COL has commissioned research in two key areas, gender and ICTs, and boys' underachievement in some Commonwealth jurisdictions. These studies were undertaken in partnership with the Commonwealth Secretariat (ComSec) and Commonwealth Educational Media Centre for Asia (CEMCA).

**Health, Welfare and Community Development** has been a strand of activity for a number of years. It is aimed at the most disadvantaged whose need for information about communicable diseases is paramount.

**Environmental Education** activity is focussed on building institutional capacity at the local level to use ODL for developing and delivering high quality environment-related educational materials. COL also helps practitioners and school teachers gain new knowledge and skills so indirectly COL can reach large numbers of learners.

**Good Governance** is a relatively new area for COL and it has recently assigned a dedicated member of staff to this. COL aims to use open and distance learning methods to add value to international efforts to achieve good governance.

**Educational Use of Mass Media and ICTs [COLME]** is a longstanding COL activity. It has centred on utilising radio, television, video and audio production. COLME's impact has been to empower local communities, organisations and institutions with appropriate skills and technology so that they can address education, environment and agricultural issues with locally created training materials and information. Over the past decade, the programme has implemented and sustained field-based activities in over 25 countries in the Pacific, Africa, Asia and the Caribbean.

## Appendix I: African ODL Agencies and Networks

There are several regional associations for ODL, and a new Pan-African organisation known as ACDE (African Council for Distance Education). There are several agencies concerned with ODL advocacy and development, some Africa based (SAIDE, AVU, ADEA) and some global with African components (e.g. UNESCO, CoL, ICDE). Key features of these are summarised below.

### African based agencies and networks

**ACDE (African Council for Distance Education)** was established in 2004, with the intention of being a pan-African body modelled on the AAOU (Asian Association of OUs). It is based in Nairobi, and has strong support from UNISA, Egerton and NOUN, amongst others. It has held one conference so far (at UNISA), and plans another in Lagos in July 2008, hosted by NOUN.

ACDE aims to become a major player in the promotion and advocacy for open and distance learning in Africa. It intends to do this by promoting research, policy and quality in open and distance learning so as to increase access to education and training in Africa. To date, it is a small body with great potential.

**African regional and national ODL associations** vary considerably in their level of activity, but they do provide ways of making contact. They include the following:

Association	Acronym	Country /region
Distance Education Association of Southern Africa	DEASA	Southern Africa
Distance Education Association of Tanzania	DEATA	Tanzania, but links across East Africa
Ghanaian Distance Education Association	GHADEA	Ghana
Open and Distance Education Association of Malawi	ODEAMA	Malawi
National Association for Distance education of South Africa	NADEOSA	South Africa
Réseau africain de formation à distance	RESAFED	West Africa
The West African Distance Education Association	WADEA	West Africa
Zambia Association for Distance Education	ZADE	Zambia
Zimbabwe National Association of Distance and Open Learning	ZINADOL	Zimbabwe

Current secretaries/chairs can be found on COL's Knowledge Finder.  
[www.col.org/colweb/site/pid/2919](http://www.col.org/colweb/site/pid/2919).

## **African ODL Agencies**

**The African Virtual University (AVU)** ([www.avu.org](http://www.avu.org)) is a network of universities engaged in developing ODL (see Appendix K). The focus of its work is collaborative projects focused on resource development and capacity building for partner universities.

**Association for the Development of Education in Africa (ADEA)** has a working group on distance education (WGDEOL) <http://www.adeanet.org/wgdeol/>. It was created in 1997 to help ministries of education, training institutions, and NGOs in Africa to deploy ODL. The lead agency for WGDE is the Mauritius Ministry of Education and Research, through its Commission for Tertiary Education. WGDEOL collaborates with COL and the francophone distance learning network RESAFED (Réseau africain de formation à distance).

**South African Institute for Distance Education (SAIDE)** ([www.saide.org.za](http://www.saide.org.za)) was established in 1992 as an educational trust. Its mission is to advocate ODL in South Africa, and work with educational institutions and national and local governments to make this a reality. It has acquired a high reputation for quality, and has managed a wide range of projects. Its reputation and involvement now extend far beyond the borders of South Africa.(see Appendix F)

## **Global Agencies and Networks with strong African links**

**UNESCO** has established an ODL knowledge base for Sub-Saharan Africa, the aim being to gather together reports on various aspects of ODL, namely ODL systems, learner support and assessment, management and administration, programme development and use of media /technologies ([www.africaodl.org](http://www.africaodl.org)) it has collaborated with the World Bank and COL in its development, and commissioned SAIDE to implement it.

UNESCO also currently has a long-term initiative concerning teacher education policy in Africa (TTISSA – Teacher Training in SSA). Its aim is to enhance the development of teacher education policies, and to encourage networking and the sharing of best practice and lessons learned. ODL is an important strand of this work.

**International Council of Distance Education (ICDE)** ([www.icde.org](http://www.icde.org)) was founded in 1938. Its key activity is its biennial conference, held in different venues all over the world. These events bring together the major players in the field, facilitating the exchange of ideas, and this is really its main raison d'être. It also has organic links with regional associations, such as AAOU (Asian Association of OUs), EADTU and EDEN (two European associations). ACDE sees itself as the new African link for ICDE, and is in touch with it.

**Commonwealth of Learning (COL)** ([www.col.org](http://www.col.org)) is a key agency for ODL development across the Commonwealth. See Appendix H)

## Appendix J: TESSA ([www.tessaprogramme.org](http://www.tessaprogramme.org) and [www.tessafrica.net](http://www.tessafrica.net))

TESSA is a project involving 9 African countries and 13 universities, in a consortium which also includes the OU UK, CoL, AVU and the BBC World Service Trust. Several universities already mentioned are involved. The complete list is in the table below.

Winneba and Cape Coast	Ghana
Egerton	Kenya
National Teachers Institute	Nigeria
Kigali Institute of Education	Rwanda
UNISA, Pretoria, and Fort Hare	South Africa
OU Sudan	Sudan
OU Tanzania	Tanzania
Kyambogo and Makerere	Uganda
University of Zambia	Zambia
AVU	Nairobi ,Kenya, with office in Dakar, Senegal
BBC World Service Trust	Nairobi office
COL	Vancouver, Canada
OU	UK

TESSA is developing a bank of OER materials focussing on teacher education at basic level. These cover some topics from all the core subjects grouped under five headings - numeracy, literacy, social studies and arts, science and lifeskills. All materials are school-based with many activities included, and are designed to support teachers in developing interactive pedagogy skills. All the authors are African. Each partner country has developed versions of the materials to suit their own contexts, and there are versions in 5 languages – English, French, Swahili, Xhosa and Arabic. There is also a generic set of resources for teacher educators.

TESSA is developing a website to house these resources. All versions will be posted on this website and as all resources are OERs, anyone, anywhere will be able to use them. They will be available in two formats – web-based and as pdf files, for easy printing. TESSA will soon be a resource available throughout Africa (and elsewhere) without any cost. This should go live at the end of April 2008, at [www.tessafrica.net](http://www.tessafrica.net).

The partner universities are now in the process of integrating these materials in their own programmes as they see fit. Some programmes are going to be offered in ODL off-campus mode, and some universities will use them in their campus based programmes. They can be used in any way that makes sense in the context concerned, and partners' usage varies from short updating courses to incorporation in existing or new diploma and degree programmes. The consortium has been sharing ideas and plans for implementation, and has an extensive evaluation programme. TESSA has always been envisaged as a research and development programme and a variety of research projects are ongoing.

The consortium is actively seeking funding for a second phase to deepen the present work, to support its use in other countries, and extend the concept to secondary level.

## Appendix K: AVU (African Virtual University)

The AVU has gone through several phases in its short life, but it is now re-emerging from a difficult period during which it came very close to being wound up.

In earlier phases AVU was essentially a conduit for, and a facilitator of, courses and degree programmes offered by institutions outside Africa. In the first phase (beginning in 1997) students attended African campuses for lectures delivered via satellite. These were for short courses on topics such as IT and journalism. In the second phase (beginning in about 2002) the short courses continued, but the main programmes were degrees and diplomas in computer science and business studies awarded by Australian and later Canadian institutions. The approach underwent a major review in 2004, sponsored by the major donors – DFID, World Bank and CIDA. The conclusion was that the model was too donor dependent and therefore unsustainable, and in any case was not capable of delivering the vast increase in access to higher education that had been hoped for. The review recommended a different approach, and this is now being implemented. The change has come at a time when initial donor funds were coming to an end and there have been considerable difficulties, but these are close to being resolved at the time of writing.

AVU's mission going forward is to be a catalyst for ODL for the universities with which it is associated. It performs this function through its head office in Nairobi, and its office in Dakar. Catalysing and facilitating ODL is a very useful function in Africa, where ODL could play a key part in university expansion. Within this, AVU is no longer focussed on high end technologies, but rather sees these as a valuable component of ODL systems where these technologies are available, alongside print, mobile phones, radio and so on.

Its current network is not large, being focussed on two current projects, but it does include several universities in Francophone West Africa, universities in Ethiopia, Somalia, Rwanda and Burundi, several Anglophone universities in East and Southern Africa, one in Mozambique, and one in Madagascar. As these projects unfold and new ones emerge the network is expected to grow. AVU is also actively involved in OERs and is a TESSA partner. Key current activities are outlined below.

**The AVU Multinational support project** is the most significant current venture. It focuses on ODL in teacher education at secondary level, in maths and science. It is jointly funded by the African Development Bank and UNDP. Each country is represented by one university, chosen by its government, but the resources being developed are intended for all universities in the country concerned. (Somalia is an exception to this rule). The project has three strands.

- (a) The development of ODL materials for use in the 10 countries, to use in their B.Ed programmes. Within this there is considerable use of ICT. The materials will begin to be used in September 2008.
- (b) The establishment of ODL centres on the campuses of each representing university, which they can use for ODL capacity building, the development of new materials, searching for OERS and other resources, and conferencing.
- (c) ODL capacity building which is being implemented through workshops and ODL study in the ACEP programme (AVU Capacity Enhancement Programme)

The countries and universities are set out in the table below.

Participating country	Representing university
Ethiopia	Jimma
Kenya	University of Nairobi
Madagascar	Université Antananarivo
Mozambique	Universidada Padagogica
Senegal	Cheick Anta Diop
Somalia	Amoud, East Africa, Hargeisa
Tanzania	OU Tanzania
Uganda	Kyambogo
Zambia	University of Zambia
Zimbabwe	University of Zimbabwe

**AVU and computer science in the Francophonie** AVU's other main project is a continuation of its work with the Association of Universities and Colleges in Canada, funded by CIDA, where it supports the delivery of a bachelors degree and diploma in computer science for African Francophone countries, offered by the University of Laval in Montreal. The countries and universities involved are in the table below

Country	Centre
Benin	Cotonou
Burkina Faso	Ougadougou
Burundi	Bujumbura
Cameroon	Douala
Mali	Bamako
Mauritania	Nouakchott
Niger	Niamey
Senegal	Cheick Anta Diop, St Louis

This programme also has an ODL capacity building strand, so that the participating universities will be able to take over responsibility themselves, currently planned for 2009. The same ACEP programme is being used for this as for the teacher education project described above.

**TESSA also includes AVU as a partner**, and there is some overlap between TESSA partners and those AVU already has for other reasons. But TESSA also extends AVU contact to additional institutions, and AVU intends to build on this.

**OERs** are also very much part of AVU's thinking. It aims to raise awareness of these, and to build up a bank of relevant African OER resources in due course. This would be a very useful service to its partners. It has run sessions on this in a previous 'eLearning Africa' conference and will be doing this again in the May 2008 conference in Accra.