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**Taking OER beyond the OER Community:  
Policy and Capacity**

**Policy Forum**

Paris, France

1 December 2010

**SUMMARY REPORT**

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**Organised by:** *United Nations Educational, Scientific and Cultural Organisation (UNESCO)*

**Supported by:** *Commonwealth of Learning (COL)*

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## ABBREVIATIONS

ADEA	Association for the Development of Education in Africa
AVOIR	Africa Virtual Open Initiatives and Resources
BBC	British Broadcasting Corporation
CC SA	Creative Commons South Africa
CERI	Centre for Education Research and Innovation (OECD)
CI	Communication and Information (UNESCO)
CIS	Commonwealth of Independent States
COL	The Commonwealth of Learning
EIA	English in Action
FOSS	Free and Open-Source Software
GATS	General Agreement on Trade in Services
HE	Higher Education
HEAT	Health Education and Training
HEIs	Higher Education Institutions
ICT	Information and Communication Technology
IIEP	International Institute for Education Planning (OECD)
IITE	Institute for Information Technology in Education (UNESCO)
IP	Intellectual property
KERIS	Korean Education and Research Information Service
KNUST	Kwame Nkrumah University of Science and Technology
MDG	Millennium Development Goal
MIT	Massachusetts Institute of Technology
OCW	OpenCourseWare
ODL	Open and Distance Learning
OECD	Organisation for Economic Co-operation and Development
OER	Open Educational Resources
OLI	Open Learning Initiative
OpenLearn	Open Learning repository at the UK's Open University
OU	Open University
PBL	Problem based learning
SAIDE	South African Institute for Distance Education
TESSA	Teacher Education in Sub-Saharan Africa
UESC	University e-Learning Support Centre
UCT	University of Cape Town
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VUSSC	Virtual University of the Small States of the Commonwealth
WCHE	World Conference on Higher Education

## 1. EXECUTIVE SUMMARY

UNESCO, supported by the Commonwealth of Learning and other international and regional organisations and associations, should play a brokering role and be driving the international agenda to promote OER in the international context.

The Policy Forum that was attended by participants from 60 member countries focused on raising awareness of OER at the policy level. In his welcoming address Dr Tang, the Assistant Director-General for Education at UNESCO asserted that OER had the potential to transform education at all levels of the system by providing quality teaching and learning resources. He also promised that UNESCO would be paying greater attention to higher education, especially the use of OER, and that it will need to decide on specific entry points so as not to duplicate current initiatives.

Sir John Daniel, CEO and President of the Commonwealth of Learning, identified “*a dichotomy challenging governments*” and “*a paradox confusing higher education*”. The dichotomy was between proprietary or restricted content and open content whilst the paradox was that whilst ODL was “booming” at some institutions others were trying to suppress it – often within the same institution or country.

At various levels UNESCO and other organisations are developing OER platforms to facilitate the identification and sharing of OER materials. Already a number of OER materials have been developed - many of these in true collaborative style. Various presenters argued that there was a need for OER to be available in a number of different formats, including print and on CD, in order to ensure their accessibility in the developing world where ICT infrastructure often restricted access to online digital materials.

Representatives from Kenya, Ghana, the Virtual University for the Small States of the Commonwealth (VUSSC) and the UK’s Open University outlined the processes that they had adopted in developing and quality assuring OER. Representatives from Germany, Korea, Mauritius and Agence universitaire de la Francophonie (AUF) detailed of how their countries/organisations were promoting OER in higher education.

During 2010 UNESCO, in partnership with the Commonwealth of Learning, held four workshops (in South Africa, Namibia, Mali and India) focussing on raising awareness around OER. These workshops targeted executive heads of universities, academics, quality assurance agencies and representatives from developed and developing countries. Three online forums discussing a range of issues such as copyright and what works were also held bringing together over 350 participants.

Despite all the recent activities the participants indicated that there was still a great need for advocacy, especially amongst teachers and researchers at grassroots level; a need for governments, regional organisations and associations to be more involved in promoting OER through policy development and other advocacy initiatives; and policy development around quality assurance. However, there was general consensus that through collaborative efforts the issues of access to institutions of higher learning and quality would be addressed and that OER have the potential to transform higher education.

## 2. OPENING AND WELCOME

The UNESCO Policy Forum on Open Educational Resources was held on 1 December 2010 at UNESCO Headquarters. The meeting brought together some 100 participants representing decision makers in higher education at systems (government) and institutional level from all UNESCO Member States. (Annex I. List of Participants). The objectives of this Policy Forum were to:

- Establish a common understanding of Open Educational Resources (OER,) and their potential to promote access to quality higher education in developing countries;
- Explore how OER can maximize the impact of investment on education
- Discuss the role of OER in advancing the Millennium Development Goals
  
- Review progress made in the UNESCO-COL initiative ‘Taking OER beyond the OER Community’
- Discuss and propose a way forward for UNESCO and other relevant agencies to harness OER for the greatest benefit of education and explore related issues, in particular Open Licensing and their adoption in intergovernmental organizations’ policies

This Policy Forum was held in the framework of the UNESCO/COL Initiative, *‘Taking OER beyond the OER Community: Policy and Capacity*

This Initiative is financed thanks to extra-budgetary funds provided by the Government of the United States, regular programme funds from the Division of Higher Education and the Commonwealth of Learning. It is part of UNESCO’s inter-sectoral activities in the field of ICTs and Education.

The opening session was chaired by Ambassador David Killion, the US Permanent Representative to UNESCO, who outlined the purpose of the Policy Forum as being the reaffirmation of the potential for OER at the policy making level. Ambassador Killion highlighted that OER contribute to teaching and learning by providing a range of materials from complete courses to individual lessons that can be integrated into both formal and non-formal education programmes under open licensing frameworks . Ambassador Killion indicated that the US supported the project because OER (1) support cross-border collaboration; (2) comprise easily available quality materials that can be provided to communities without access to the Internet; and (3) promote real-time sharing of information especially in areas of science, technology and engineering.

The Honourable Davidson Hepburn, the President of the 35<sup>th</sup> Session of UNESCO’s General Conference, expressed appreciation for the collaboration between UNESCO and the Commonwealth of Learning (COL) in the field of OER. He went on to outline the symbolic mandate of OER, that of *“going beyond borders”*. He concluded by stating that there was a role for OER in helping nations to reach the important goal of ‘Education for All’.

In his welcoming remarks the Assistant Director-General for Education, Dr Tang, highlighted that achieving ‘Education for All’ is UNESCO’s top priority and that this, of necessity, requires access to high quality teaching and learning materials. OER have the potential to transform teaching and learning by allowing education across the world to draw on existing materials and to adapt them to local needs. He argued that the potential benefits of OER are infinite.

Dr Tang outlined UNESCO's involvement in OER starting with various workshops in 2002, the launch of the OER Portal during the Tunis phase of the World Summit on the Information Society (WSIS) in 2005, the work that was done by the IIEP, and the current OER Project. He added that higher education plays a strategic role in anticipating changes, stimulating innovation and driving human development through both the teaching and research functions and that these need to be based on a system of knowledge sharing. He argued that OER are an effective platform for supporting these processes. UNESCO is working towards multi-directional flows of OER in which the developed countries use OER developed by developing countries and *vice versa*.

The UNESCO/COL project aims at working with decision makers, higher education institutions and quality assurance agencies in developing regions to increase their awareness and understanding of the potential of OER thereby achieving their educational goals. Dr Tang stated that the main objective of the Forum was to share innovations amongst high-level policy makers by identifying the key points that policies need to address in order to promote the wider use of OER for quality teaching and learning in higher education.

Mr Janis Karklins, Assistant Director-General for Communication and Information (CI) at UNESCO, highlighted that universal access to education is key to building peace, sustainable social and economic development, and inter-cultural collaboration and that OER provide a strategic opportunity to improve both access and the quality of teaching and learning materials, to facilitate policy dialogue, knowledge sharing and capacity building. In respect of OER the objectives of the CI sector at UNESCO is to build inclusive knowledge societies through information and communication.

The ICT Division in the CI sector is currently developing an innovative OER platform that will offer selective UNESCO publications as OER. The first such resource will be the UNESCO model curriculum for journalism education which has been successfully adapted for use in 57 university Journalism Schools. UNESCO benefits from the platform through the establishment of strong links with institutions and being able to tap into new materials and innovations. OER are closely related to other CI projects such as open access, especially in the field of scientific information, and free and open-source software (FOSS). The OER platform is being developed using FOSS tools and is being developed by the Africa Virtual Open Initiatives and Resources (AVOIR) consortium. It is expected to be launched during the 2011 General Conference.

### **3. SETTING THE SCENE: OPEN EDUCATIONAL RESOURCES AND THE OPEN CONTENT MOVEMENT**

Sir John Daniel, CEO and President of the Commonwealth of Learning (COL), outlined the development of various OER initiatives and the ongoing collaboration between COL and UNESCO. OER form the foundation of the Virtual University for the Small States of the Commonwealth (VUSSC). COL is also working towards the development of a complete senior secondary curriculum in both print and e-learning format. COL is a partner in the Teacher Education in Sub-Saharan Africa (TESSA) project that has produced a huge array of OER materials for classroom-focused teacher education available in a number of languages used in Africa. COL was also intimately involved in the four OER workshops and three online discussion forums that preceded the Policy Forum. The online

discussions allowed the wider OER community to comment on the emerging thinking and so impact on the debates at the Policy Forum.

Sir John Daniel contended that UNESCO's task in promoting the wider concept of OER is just beginning and that they have an important and exciting task of leadership in the future, viz. that of placing OER in the wider context of the worldwide open content movement. He noted that education and higher education in particular confront many challenges – *“education is sailing through stormy economic seas while above it the developments in educational technology is flying ahead at supersonic speeds”* and that OER might be able to address some of these challenges.

There is a dichotomy challenging governments and a paradox confusing higher education institutions. The dichotomy and paradox are felt more keenly in some countries in the world but both have policy implications for all countries. According to Sir John Daniel the dichotomy is between proprietary content and open content in which technological changes (mostly related to the Internet) have impacted on the media and publishing industries. These changes are beginning to lead to organisations changing their business model and to governments reviewing their copyright legislation. The OER movement is challenging institutions and governments to make available as OER the materials that they have produced. Many higher education institutions have enhanced their reputation by making their education material openly available. In some instances this has led to increased revenues as student registrations have increased.

The paradox lies in the open and distance learning (ODL) environment that is *“being pulled by the need for access to higher education and pushed by the onward march of technology”* thereby making it less expensive and more competitive. Sir John Daniel provided some evidence of how resource development was being conducted at Athabasca University and at the Asian e University both of which can put together courses adapted to their needs by combining content freely available on the Internet whilst acknowledging the original authors. ODL methods are now beginning to permeate all universities, including those not previously involved in ODL activities. The paradox also lies in the fact that some organisations/countries are encouraging the spread of ODL whilst others are trying to limit or restrict it – in some cases within the same institution/country.

Both noble and ignoble motives are behind the hostility towards ODL. The noble motives are concerns about quality, particularly in comparison to classroom teaching. The ignoble motives are about loss of revenue as students choose less costly and more convenient modes of study. Sir John Daniel avers that OER and open content will raise the quality of ODL and consequently classroom teaching but that there could be resistance brought about by the increasing availability of educational content. He argues that the role of teachers must change from that of the provider of content to that of a facilitator and adviser assisting students to find relevant and abundant resource materials – from being the *“sage on the stage”* to being the *“guide on the side”*.

For governments and organisations such as COL and UNESCO there is still much to be done. One of these is facilitating the creation and compatibility of OER. An international collaborative effort (led by Allyn Radford) is currently developing the Open Learning Content Editing Console that will provide OER communities with a set of tools to publish OER in a structured format. This tool could promote the adoption of OER, scale up the available content and make it more widely available.

Governments should insist that all material of educational value and that advances knowledge, either developed by them or by others using public funding, should be made available as open content materials under open licenses. Sir John Daniel concluded his address by urging UNESCO to adopt a policy of open licenses for its own publications and to initiate and lead a worldwide campaign to open up all content that would advance knowledge. He sees this as a major feature of UNESCO's work across all sectors. This could be accomplished through advocacy programmes with other UN and international agencies and by urging member states to embrace the OER movement.

#### **4. TAKING OER BEYOND THE OER COMMUNITY: POLICY AND CAPACITY FOR DEVELOPING COUNTRIES**

Ms Stamenka Uvalic-Trumbic, Chief of the Section for Reform, Innovation and Quality Assurance at UNESCO, briefed the participants on the numerous OER activities that had been undertaken since 2000. She highlighted two parallel but opposing trends, one being trade liberalisation leading to the "*commodification of higher education*" and the other the concept of openness leading to free access to content and the FOSS movement. The latter led to MIT placing many of their courses online for public access.

A new General Agreement on Trade in Services (GATS) had been adopted that for the first time included education as a service. Fears were expressed at the time of its adoption that GATS would focus on commercial issues and that issues of quality and research in education would be sidelined. A conference organised by the US Government and OECD was held in Washington in 2002 to address issues arising from GATS. Some of the speakers at the conference reinforced the need to emphasise quality assurance, accreditation and qualifications. The vital role that UNESCO plays in ensuring that educational goals are not undermined by trade goals was acknowledged by many of the governments, in particular Japan and Norway. This led to UNESCO launching a global forum on quality education in 2002. One of the outcomes of this global forum and a direct response to GATS was the development in 2005, along with the OECD, of a publication on "*Guidelines for Quality Provision in Cross-Border Higher Education*".

One of the clauses adopted and included in a communiqué released after the World Conference on Higher Education held in July 2009 stated that "*ODL approaches and ICTs present opportunities to widen access to quality education, particularly when open educational resources are readily shared by many countries and higher education institutions*". This clause gave rise to the current joint UNESCO/COL project on "*Taking OER beyond the OER community: Policy and Capacity*".

Ms Uvalic-Trumbic went on to outline the objectives of the UNESCO/COL project that were premised on the fact that OER would not be able to help countries reach their educational goals unless their potential was expanded beyond the current OER community.



The project specifically targeted Africa, Asia and the Pacific Region and entailed the following activities:

- The development of an OER dossier
- Four capacity building workshops, linked to other international/regional conferences in order to broaden the scope and understanding of OER, were held in:
  - Cape Town (South Africa) in April 2010. This workshop was linked to the conference of the Association of Commonwealth Universities and targeted executive heads of participating institutions
  - Windhoek (Namibia) in May 2010. This workshop was linked to the conference of the International Network for Quality Assurance Agencies in Higher Education in order to strengthen the link between OER and quality assurance
  - Bamako (Mali) in October 2010. This workshop focussed on Francophone African countries and was linked to a workshop on capacity building on the use of educational resources (OER) for improving the quality of higher education
  - Kochi (India) in November 2010. This workshop was linked to the 6<sup>th</sup> Pan-Commonwealth Forum on open and distance learning
- Three online discussion forums held during September, October and November. The issues discussed during the forums included:
  - Taking OER beyond the OER Community: Policy and Capacity
  - What works, what does not and under what conditions?
  - Copyright and the development and re-use of OER
- The Policy Forum held on 1 December 2010 at UNESCO's Headquarters.

One of the concerns that has been raised about OER on a number of occasions was that they can be seen as an extension of colonialism whereby the developed countries provide resources to the developing countries (*"the consumers"*). The workshops provided evidence that this was not the case by showcasing a number of projects that were multi-directional and where OER developed in the developing countries were in fact being used in universities in the developed countries.

Ms Uvalic-Trumbic concluded her address by posing a number of questions regarding the expectations of the Policy Forum and the role that the participants would play in the process.

## **5. WHAT WORKS: A PANEL DISCUSSION**

(Chair: Honourable Davidson Hepburn, UNESCO)

Invited speakers involved in successful OER projects around the world addressed the participants highlighting their specific projects, detailing what had worked and some of the lessons they had learnt.

### **5.1 OER AFRICA: LESSONS LEARNT**

After detailing who OER Africa is and the work that they are involved with Ms Catherine Ngugi, Project Director at OER Africa, went on to showcase details of some of their successes and the lessons they have learnt from their involvement with OER. OER Africa focuses most of their work in English-speaking universities across Central and East Africa. She assured participants that OER,

although not synonymous with online or electronic learning, can most certainly enhance all types of teaching and learning. Because of infrastructure limitations in Africa, most of the resources produced by OER Africa are available in print format as well as in shareable digital format on the Web.

Ms Ngugi elaborated on some of the work being done at the Kumusa College of Nursing at the University of Malawi and the HealthOER project at the Kwame Nkrumah University of Science and Technology (KNUST) in Ghana. In the latter case work done on tropical diseases (such as the realities and treatment of the Buruli Ulcer) is now being used as a valuable resource at the University of Michigan thereby reversing the trend of developing countries being net consumers of OER. Students in Michigan are now able to see aspects of various tropical diseases that were previously only available in textbooks.

For OER to succeed, as with so many other innovations in education, a champion is needed to drive the innovation. Initially OER Africa thought that the champions would come from the university management but they soon realised that a champion could be anyone, from students through to “old fogies”. Some OER proponents take the view that “*it is such a waste not to share all this knowledge*”. There is also the thought that once involved in OER people become “*evangelical*”. An important point to bear in mind is the need for more than one champion (a team of champions), so that should the champion leave the institution there are others to pick up the baton and the innovation will not die.

When OER Africa initiates an involvement with a university considering the use of OER they offer to review the institutions existing policies to establish how “*open*” they are. In many cases their mission and vision statements expound on the values of being “*open*” and yet some of the policies inhibit sharing of information/resources. There is, therefore, a need for clear, unequivocal statements on, amongst others, intellectual property rights and sharing.

In general faculty members in most institutions are over-burdened and so when their involvement with the development of OER is considered the issue of compensation frequently arises. Inclusion of resource development for performance appraisal should also be taken up in institutional policies as a way of addressing this issue. Policies on OER need to be institution-specific as they need to take into account the institutions own philosophies around issues such as pedagogy, sharing, resource development, assessment, appraisal, licensing, etc.

Ms Ngugi noted that funding is critically important if OER is to become a sustainable innovation in higher education. Examples from UCT and KNUST were discussed where initial seed funding assisted in covering costs of faculty and also the acquisition of other technical skills required in developing resources. In some instances internal funding has also been unlocked, sufficient to sustain the development work. In other cases institutions collaborate in the development of a resource where each institution brings some funding to the table thereby reducing their own costs were they to have done the development work by themselves.

In concluding her address, Ms Ngugi noted that faculty members involved with OER were better motivated to turn OER into research and then to share this research. In some countries the digitisation of lecture material has made a world of difference to students who previously had not

had any textbooks because of prohibitive costs. The fact that students now had the lecture material has meant that the lecture time can be better utilised.

## 5.2 THE UK OPEN UNIVERSITY AND OER: A SUCCESSFUL INSTITUTIONAL EXPERIENCE

Mr Martin Bean, Vice-Chancellor of the UK Open University (OU), started his presentation by providing some background on the Open University and its mission. Created 41 years ago the UK OU effectively became one of the first open education resource movements, “*open to people, places, methods and ideas*”. With assistance from the BBC lectures were broadcast across the UK and around the world at no cost. The OU has always prided itself on using the technology of the day to provide a quality higher education experience to as many people as would like to access it.

Mr Bean highlighted the fact that although the OU has over 260 000 enrolled students their online resources are accessed by literally hundreds of millions of people throughout the world on an annual basis and which ultimately lead to meaningful education outcomes. With support from the BBC (both television and radio) OU programmes were “*viewed*” by over 200 million people in the UK and, with assistance from the World Service and other broadcasters, by over 2 billion people internationally.

The OU working with the Carnegie Mellon University and supported by the William and Flora Hewlett Foundation developed OLnet (the Open Learning Network) which is a group of people working in the OER space. The aim of OLnet is to gather evidence and methods about learning in a more “*open world*” using OER.

The OU’s major success story revolves around OpenLearn, their open education repository. OpenLearn comprises two broad spaces:

- The learning space where full course materials in 12 subject areas, all licensed under Creative Commons, are located. These materials at various levels comprise over 8 000 hours of study. Statistics show that this repository has drawn over 10m visitors, 50% being from the international community. Currently the repository averages over 460 000 visits per month. Evidence also shows that at least 6 000 students were directly influenced to register at the university because of their OpenLearn experiences.
- The OpenTools space is not a repository but contains a range of collaboration tools enabling social interactions between lecturers and students and between students themselves. These tools include forums, video conferencing and other support tools. Practitioners from around the world are invited to mix and match and use the resources to create derivatives, add to them and to share. This space acts as a catalyst for further innovation.

In Mr Bean’s opinion OER, if implemented correctly, could achieve a double bottom-line - a bottom-line of “*doing wonderful things for people around the world*” and a bottom-line of sustainability where the integrity and financial viability of the institution can be preserved.

Using their experience, and the resources and tools available the OU in partnership with other institutions is focussing on the Millennium Development Goals (MDGs) associated with teacher education and healthcare education. Projects include TESSA (Teacher Education in Sub-Saharan Africa); the Health Education and Training (HEAT) Project that is modelled on TESSA; and the Open University English in Action (EIA) programme that aims to change the way that 25m primary and

secondary school children in Bangladesh learn English. Each of these projects has the potential to reach millions of people and is making a significant contribution to the countries, in which the projects are running, meeting their respective MDGs.

Mr Bean addressed the fears that neo-colonialism ("*one-way traffic*") sometimes raised by stating that "*one can only get scale, reach, relevance and impact if one spends as much time in the early days focussing on amassing great partners and learning how to work with them in the countries and with the students that one wishes to serve*". This could be considered the critical success factor when developing OER.

Continuing their innovative approaches to the development and distribution of OER the OU endeavours to use the technologies available to get educational content to people at very low unit costs. Mr Bean avers that "*the great promise of ICTs in education is its ability to cost effectively scale quality experiences for people*". Using the Internet, broadband and mobile devices wonderful content can now be realised. The OU continues to use a multi-casting model as they move into using YouTube EDU and iTunesU. Some of these platforms are interactive as "*viewers*" are invited to debate the outcomes of, for example, science experiments that they have viewed thereby enhancing their own learning experience.

By the beginning of 2011 the OU will have launched over 300 interactive book titles in the book repository within iTunesU. The interesting aspect of these books is that they have all been developed from material already on OpenLearn. The powerful message of using these technologies is that if you wish to have scale, impact and reach, and you wish to engage the "*net-generation*" then one has to seriously think about "*moving in and out of the places where they live rather than bringing them to us*" – so use the technologies where the students are, such as Facebook, Twitter, YouTube, etc.

In concluding Mr Bean would like to see a system that instead of providing a highly structured "*fixed granularity of courses, standard curriculum and pricing*" provides learners with ways to access quality content by exploiting open resources that is supported outside of the normal institutional setting, that is accredited by mentors and the platform and that ultimately will satisfy the growing demands for higher education.

### **5.3 THE VIRTUAL UNIVERSITY FOR SMALL STATES OF THE COMMONWEALTH (VUSSC) MODEL FOR DEVELOPMENT: OER**

Dr Emma Kruse-Vaai, of the University of Samoa and representing VUSSC, gave some background on the development of VUSSC, how it is funded as well as the regional management structures.

In the VUSSC community OER were developed collaboratively using the notion of a "*bootcamp*" (an intensive training workshop) comprising content specialists and design experts. VUSSC develops materials in English based on needs jointly identified by the Ministers of the small states in order to address common areas. The development of the OER is accomplished using a template devised by VUSSC with assistance from COL. Current content covers fields such as agriculture, life skills, disaster management, fisheries, port management, online content development and professional development for educators.

In the development of high quality OER VUSSC works closely with professionals and specialists in industry to ensure that the materials are relevant. National, regional and trans-national qualifications authorities are also consulted as graduates using the materials need to have their qualifications accredited. The materials are learner and teacher oriented and developed bearing in mind the language skills of the target audience. In keeping with the ideals of OER the materials are adaptable and in digital format for portability.

The approach adopted has been bottom-up with the institutions involved making their facilities and infrastructure available for the “bootcamps”. Capacity development has also taken place during the “bootcamps” in order to increase the number of persons involved in developing OER thereby sustaining their development. Institutions are also recognised which enhances the acceptance of the materials. All materials are developed under the Creative Commons licensing framework.

Ms Kruse-Vaai alluded to the sustainability of the VUSSC OER developments by highlighting that provision had been made for resources for future growth; that there was continuing human resource and infrastructure capacity building; that OER formed part of the strategic plans both at national and institutional level; and that partnerships were being extended and expanded. Linked to these there was ongoing research on the impact on the target groups to ensure accountability and transparency.

In concluding her address Ms Kruse-Vaai enumerated some of the challenges that the VUSSC OER consortium faced. These include the need for additional computer infrastructure, broadband connectivity, keeping up with fast-changing technology, sustaining collaboration networks, encouraging local stakeholder support (including parents) and the need for policy development.

#### **5.4 HEALTH OER AT KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Catherine Ms Ngugi spoke on behalf of Prof. Peter Donkor of the College of Health Sciences at the Kwame Nkrumah University of Science and Technology (KNUST) in Ghana. Ms Ngugi outlined the structure of the College of Health Sciences at KNUST before providing some background on the current situation at the college and why OER were considered. Amongst other issues the college is faced with high student to faculty ratios, inadequate classroom and laboratory infrastructure, large student numbers during critical clinical instructions, and inadequate, outdated and expensive learning resources.

In an endeavour to overcome these challenges KNUST teamed up with the University of Michigan, OER Africa and other Southern Africa universities in 2008 to embark on an OER development project (Health OER). Despite initial fears from faculty members many volunteered to be part of the project. The content and design of the OER was done by faculty members with assistance from ICT, media and instructional design specialists. Media specialists were involved in the quality assurance process using a process called dScribe that also uses students to check on issues relating to copyright.

The areas in which OER were developed were identified based on needs. These include OER in the fields of Internal Medicine, Microbiology, Obstetrics and Gynaecology, and Behavioural Sciences. All these resources are now available on the KNUST OER repository. Stemming from this process KNUST has now also approved an OER policy preparing the way for future developments and sustainability.

In addition an OER workshop had been scheduled for management staff in West African medical schools in November 2010.

From the students' perspective Ms Ngugi reported that they felt that the resources complemented the traditional lectures and significantly aided in their understanding of many of the complex scientific processes. More especially where previously many students were unable to participate in the clinical instruction because of the crowded facilities they were now able to interact with the resources prior to attending the clinical sessions thereby enhancing their understanding.

As with many institutions in other developing countries KNUST faces many challenges as it implements OER. These include the need to develop courses and/or programmes using OER; the need to incentivise faculty members in order to move OER into the mainstream; financial implications; development costs; ICT-related issues; and the need to expand OER into other areas at KNUST.

Some issues still need to be addressed if OER are to be more fully accepted at KNUST. The recently approved policy needs to be implemented; there needs to be wider stakeholder involvement particularly from the Ministries of Education and Health; sustainable funding models need to be developed; the need to partner with students to get them more involved in their own learning thereby driving down the OER development costs; the need to motivate faculty to become more involved; and the need to develop metrics for the evaluation of OER use.

## **5.5 UNESCO's INSTITUTE FOR INFORMATION TECHNOLOGY IN EDUCATION: OER PROJECT**

Dr Svetlana Knyazeva, Knowledge Service Team Leader at UNESCO's IITE, provided some background on the Moscow based institute and its involvement with OER. The IITE is promoting OER in the Commonwealth of Independent States (CIS) and the Baltic States through a process of identifying and building capacity. The CIS countries share a common language (mainly Russian) and culture which makes the development of resources for all states a lot easier. As part of the process of identifying resources the IITE conducted a survey in the CIS and will be publishing an analytical report based on the survey during 2011.

As with many countries wishing to introduce OER the CIS face a number of challenges. One of these is the issue of language, especially proficiency in English, which inhibits learning as so many resources are only available in English. Other challenges include the lack of support at institutional level for the development of OER.

In respect of the development of OER there is a sense that both a top-down and a bottom-up approach is required. To this end a policy brief is currently being developed that will be based on the analysis of major achievements, challenges, obstacles, growth points and the most promising trends in OER development worldwide. A network of experts has also been established and a conference on OER was held during November 2010. During 2011 IITE will launch a gateway to available OER resources.

## 5.6 QUESTIONS AND ANSWERS

Participants were invited to pose questions that could be answered by the panellists.

- (a) How does one keep up with the changing technologies and access resources that are in digital format?

The resources should preferably be developed to run in a (web-based) browser that would allow them to be viewed on multiple technologies and platforms with more of a common user interface. Devices are also becoming cheaper and the uptake of mobile devices is on the increase – many more people are now starting to access the Internet from these devices which has an implication for the development of OER. Martin Bean suggested that “*we meet people where they live and not to try to bring them to where you are*”, i.e. ensure that the material is available in the formats they require and where they already meet (e.g. Facebook). There is a need to identify ways in which to bring the costs down so as to make OER more accessible. In countries where connectivity is a challenge OER must be made available in other formats, including print.

- (b) What steps are being taken to make institutions that have large resource repositories aware of OER and encouraging them to share their resources with others, particularly in Africa and Asia? How does one promote OER as quality resources?

There is need for greater collaboration between institutions already involved with OER and those that are not. There is a need for ongoing advocacy and the workshops, forums and online discussions such as those run by UNESCO and COL are critical. Also involvement in high profile spaces, such as iTunesU and YouTube, also promote the cause. From the UK OU’s perspective every effort they are involved with is designed with collaboration in mind.

Mr Bean suggested that the issue of quality could be seen as an issue of trust. Boundaries of trust need to be established through the involvement of educational practitioners, academics, institutions and other professional organisations that provide the necessary scaffolding for the content.

- (c) How can one ensure the contextualisation of OER materials?

OER Africa works with universities across Africa and the faculty members at these institutions ensure that the materials are contextualised according to their needs. This is achieved by running workshops around pedagogy, how to build the materials into courses, how to do the scaffolding, what learner support mechanisms are required, etc.

- (d) It seems from the examples cited that development of OER has been concentrated in the English-speaking world. What OER have been developed for Francophone countries?

The African Virtual University (AVU) centred in Senegal has developed OER for use in Francophone African countries. These include OER materials specifically in relation to Teacher Training, Mathematics, Chemistry, Physics, Biology and the integration of ICTs in education. Other organisations involved in OER for French-speaking countries are CAMES and 2iE both in Burkina Faso.

- (e) What are civil society organisations doing to promote OER? What contribution is the UK's Open University doing towards the "*production of knowledge*"?

In addition to creating the content and the knowledge contained in the broad resources in OpenLearn the OU is focusing its attention on teacher capacity building and health care as its contribution to meeting the Millennium Development Goals. Mr Bean argues that by specialising and focusing the institution will make a greater impact. The OU is also involved in serious research in addition to its focus on teaching and learning activities. The OU uses open tools, such as Open Research Online, where they encourage their academics to deposit their research articles and findings. The OU is conducting research into some of the current OER initiatives, such as TESSA, to backup and substantiate the impact and the outcomes of the initiatives.

- (f) An enormous number of OER are already available but many people and institutions are not aware of their existence. Can UNESCO and COL take responsibility for the creation of a database as well as creating awareness of their existence?

There is a sense that a single database is not required as conducting a Google search will reveal their whereabouts. The crucial thing is to refine the Google search. From UNESCO's perspective they will not be creating a database as there are already a number of repositories. UNESCO will, however, be developing an OER platform on which their own OER materials will be stored.

- (g) What message does the forum have for mothers and parents who are responsible for their children's education?

Parents need to be made aware of the technologies and OER possibly by hosting courses for them. Use could also be made of schoolnets around the world.

- (h) Of what importance are corporate social responsibilities (CSR) in the development of OER materials, specifically in relation to funding?

CSR is already making a valuable contribution to the development of OER. Examples of these include Santander who is financing work being done in Latin-America. In the spirit of public-private, public-public and private-private partnerships organisations should become more involved in the development of OER. In addition telecommunications companies should consider lowering the cost of bandwidth and making time available on their networks for the sharing of data (resources).



In concluding the session each panellist provided a brief final word:

Ms Ngugi – areas in which OER are developed need to be identified as being the most important for the country.

Mr Bean – there has been a change in emphasis from OER being an end in themselves to OER being a means to an end to support changes in educational systems. The conversation is no longer about OER as objects but more about how we use OER.

Ms Kruse-Vaai – there is a need for capacity building to keep up with technology and to keep up with the different developmental stages in each country.

## **6. WAY FORWARD: A PANEL DISCUSSION**

(Chair: Prof. J Shabani, UNESCO)

### **6.1 OER IN ACTION**

At the outset of her address Ms Zeynep Varoglu, Program Specialist at UNESCO, indicated that the objective of her presentation was to determine a way forward and to provide ideas to think about before moving into the group discussion. She reiterated that the main premise of the UNESCO/COL project was essentially that *“if people do not know what OER can do they can’t use them”* and so the objectives of the project were to develop the capacity of government and higher education institutional leaders to use, adapt and create OER and also to be aware of their existence.

People from a number of different contexts were invited to discuss OER and the grassroots initiatives being undertaken in the targeted areas, viz. Africa, Asia and the Pacific Region. Ms Varoglu asserted that OER can be a cost effective tool for enhancing teaching and learning. She cited examples where OER have been successfully used. These included:

- The [Asia e University](#) is offering a Masters in Education programme that uses both OER and non-OER through hyperlinking to selected web sites that have all been appropriately acknowledged.
- [Kumusa College of Nursing](#) at the University of Malawi addressed the lack of resources for the Certificate in Midwifery by using OER developed at the institution. The outcomes were an increased understanding of OER, capacity building of the staff and the development of digital materials released on a CD-ROM to take into account the ICT restrictions.
- [Journalism Education curriculum](#) that had been developed around Journalism Ethics and was being piloted in Namibia.

Ms Varoglu identified some of the policy issues arising from the workshop discussions. These included:

- [Sustainability](#) issues: these include use and re-use; development of OER; how institutions use OER; where does one start when deciding to use OER; development costs; and pedagogical concerns
- [Quality assurance](#) issues: these include the mechanisms used to quality assure OER (internal and/or external mechanisms); what needs to be taken into account in the process; and the

degree to which mechanisms currently used for traditional learning materials and curricula can be used and/or adapted for OER

- Issues around the recognition of faculty members involved in the development of teaching and learning materials: these include mechanisms currently used by institutions to recognise faculty for tenure and promotion; the change from recognition based on pure research output to an overall evaluation including teaching and the development of learning materials
- Accessibility and ICT issues: these include access to ICT infrastructures, including Internet access; the trend towards the use of mobile devices; and the challenges of the digital divide and the “*digital native*”
- Licensing and copyright issues: these include the protection of intellectual property; use of open licensing frameworks to facilitate the sharing of information; and the impact of new technologies on licensing frameworks

When considering policy Ms Varoglu indicated that the OECD guidelines on stakeholder involvement were used to ensure an inclusive process. These clearly identified the stakeholders as governments, higher education institutions/ providers, students, teachers, quality assurance and accreditation bodies, academic recognition bodies and professional bodies. She questioned whether this list was still relevant and whether other individuals or organisations should now also be included.

In concluding Ms Varoglu identified the following issues that had arisen from the current processes and that need to be addressed by amongst others UNESCO

- Increased policy development and support
- Tools that will facilitate the development, use and re-use of OER
- Identification of teaching and learning issues that can be addressed using OER
- Networking opportunities

## **6.2 THE INNOVATIVE CAPACITY OF OER**

The Centre for Educational Research and Innovation (CERI) at the OECD is involved in future-oriented research in education (including higher education). Dr. Dirk van Damme, Head of CERI, briefly outlined some of their research that included work on internationalisation and trade in higher education; university futures up to 2030; knowledge management and systemic innovation in education; the impact of technology on new millennium learners; skills and education for innovation; and assessing higher education learning outcomes (the AHELO Project).

Dr Van Damme suggested that people involved with OER were a vibrant emerging community involved with a multitude of small and large projects that formed part of a broader, global and innovative movement towards “*openness*” such as open software and open access journals. He questioned whether this was not just another romantic idea, a dream or an ideology of a community and whether the time was not appropriate for OER to form part of the mainstream of education.

OER have the potential to bring knowledge and learning to disadvantaged learners, communities, institutions and countries; to improve access and success in learning; to diversify and innovate teaching and learning arrangements; to increase quality in teaching and learning; to balance hegemonic relations in global higher education; and to improve the flow of knowledge.

A UNESCO/IIEP survey undertaken in 2008 showed that there are policy challenges around OER. These challenges which include advocacy, capacity development, sustainability, copyright and licensing, and quality assurance still remain on the agenda and need to be urgently addressed.

Dr Van Damme addressed the innovative capacities of OER, the possibility that OER could become an *“agent of change”* in higher education, possibly education in general. He argued that higher education is at a crossroads with several sometimes conflicting scenarios and developments presenting themselves. The results of the CERI Universities Futures research identified four scenarios for the evolution of higher education, viz. (1) a local/regional focus serving local communities; (2) a new public responsibility; (3) open networking modes; and (4) a more commercial mode of operation. Mapping these scenarios onto a 2-dimensional field four new modes of policy and regulation start to emerge. Stemming from this analysis and in his view Dr Van Damme sees OER as part of a broader movement, a driver, towards a new global governance model for education that is characterised by networking, collaboration and the use of technology.

There are a number of critical issues, possibly even risks, that have arisen in the OER community and which need serious attention. There is a need to move from the current small-scale intra-institutional project mode to a more sustainable business model that is part of the mainstream. Dr Van Damme argues that there is a strong risk of not moving beyond the current supply-driven mode of operation where the *“users consume the resource”* and don't contribute to the development and potential of OER. Dr Van Damme also notes that there is still not a strong culture of evaluation.

In plotting the way forward there is a need for *“the OER community to define itself as a systemic innovation of the global education system”*. This would require a scaling up of project-based initiatives, the development of strong local and international policies and the balancing of open licencing with current intellectual property (IP) regulation to enable the free flow of knowledge and innovation.

Dr Van Damme concluded his address by posing a number of critical and provocative questions for consideration by the participants:

- Isn't it counterproductive to see OER and *“openness”* in general as a correction or even in opposition to the dominant modes of IP regulation of knowledge?
- Is OER focusing on innovative content, new 21<sup>st</sup> century skills and innovative pedagogies or is it developing yet more traditional content operating within traditional pedagogic approaches?
- From an educational perspective, is it recommended or even conceivable to separate content from pedagogical design and delivery?
- How does one move from *“resources”* to a more comprehensive perspective on teaching/ learning interaction, including curriculum, education delivery including technology, learning outcomes, assessment and efficiency and effectiveness of education?

### 6.3 THE WAY FORWARD: OER'S VALUE PROPOSITION

Ms Barbara Chow, Education Programme Director at the Hewlett Foundation, asserts that four global developments have given rise to a greater acceptance of the role that OER have in enhancing quality teaching and learning. These are:

- The current global economic recession has placed enormous strain on budgets, especially education budgets
- With diversification more governments and foundations are starting to support OER.
- Many new innovations in the publishing industry (e.g. YouTube and iTunesU) are starting to change the face of content delivery away from traditional modes and this is opening up opportunities for OER.
- The public is more accepting of the concept of "openness". Wikipedia has changed peoples' ideas of the nature of knowledge and the co-creation of knowledge.

In order to move OER to the next level there needs to be a common message around the OER value proposition. Ms Chow identified a number of different elements to the value proposition and elucidated aspects of these elements with examples of where and how OER were being used.

- OER offer the opportunity for radically reduced costs. Examples were drawn from the work done by the CK12 Foundation in California (the Flexbook) and David Wiley's Open Virtual High School in Utah where the curriculum is based almost entirely on OER.
- OER have the potential for continuous improvement. The example was drawn from work done by Sal Khan and his Khan Academy. The Khan Academy has produced over 1 800 videos in the fields of Mathematics and Science all of which are licensed under CC-BY-NC-SA. The site is the third largest OER site in the world. Because the videos are stored on YouTube he is able to monitor their use and then modify them to reflect the users' feedback.
- Learning efficiencies can be improved. The example was drawn from a statistics course at Carnegie-Mellon University, the Open Learning Initiative (OLI) statistics class. As an experiment the course was offered in its traditional classroom-based instructor-led form and then compared to the same course run in a hybrid model where the instructor facilitates the learning using the OLI online statistics material but no lectures are actually presented. The burden for working through the online material is left to the students. Using the hybrid model the course was presented in almost half the time and 6 months after completing the course the students taught using the hybrid model fared as well as those that had been taught using the traditional methods in an assessment.
- OER provide accessibility for all. Closed captioning of video-based resources allows for hearing disabled people to access the learning materials. The other benefit is that it can be translated into other languages thereby allowing students from different language groupings to access the material. Examples here were drawn from YouTube where if video material is "closed captioned" it can almost immediately be translated into about 40 different languages. Other similar examples are dotSUB and LibriVox.
- OER enable the localisation and personalisation of learning materials. Examples were drawn from the work done in the TESSA Project where materials can be easily adapted to suit local conditions in the countries using the materials.

In concluding her address Ms Chow suggested various actions that governments could undertake to support the use of OER. Firstly, they could facilitate the sustainable implementation of OER by creating incentives, removing barriers to their adoption and increasing access by funding the necessary technology infrastructure (broadband, hardware and software). As a second suggestion Ms Chow argued for governments to integrate openness as a component of public policy by requiring that all publicly funded materials carry an open licence, by publishing all educational research through open access journals, by making more data publicly available and by supporting open source software. Finally the way forward requires a very strong governmental involvement as private foundations cannot continue to sustain the developments.

#### **6.4 LICENSING ISSUES: AN OVERVIEW**

Using the Hewlett Foundation's definition of OER Dr. Tobias Schonwetter, Postdoctoral Fellow in Intellectual Property Law at the University of Cape Town and legal lead for CC SA, established the need for a clear understanding of exactly what copyright law entails and what it allows before venturing into the realms of other open licence frameworks. He highlighted that copyright is but one of the pillars of the Intellectual Property regime and that it essentially applies to creative works including literary works, music, film and computer programs.

International copyright law protects creative works from, amongst others, being reproduced, being adapted and being distributed. Dr Schonwetter pointed out that copyright becomes effective on a creative work once three basic requirements have been satisfied. These are (1) it must be an original work, (2) developed in a material form, and (3) created by a person covered by the copyright law of the country in which they reside. In terms of the Berne Convention copyright also applies to a creative work for a minimum of 50 years after the death of the creator of the literary work. With this in mind "*all rights reserved*" automatically applies to all literary works, including OER, and permission needs to be obtained from the creator in order to use it for purposes other than that originally intended (e.g. sharing and re-purposing) sometimes with the payment of a fee.

Copyright exceptions do exist as a way of balancing copyright laws. These exceptions make provision for amongst others fair use, use of quotations and educational purposes. However, many of these exceptions only allow for the copying of short sections and are sometimes vaguely drafted. The traditional copyright laws, therefore, essentially inhibit access to knowledge and learning materials and in some developing countries this has led to a situation where copyright has to be infringed in order to access materials.

Dr Schonwetter argues that in order to make OER more accessible and open some of the copyright restrictions need to be amended and that this can be done through a more open licensing framework, including Creative Commons which over time appears to have become the open licence of choice. He added that a fear still exists in the mind of the creator as to what the impact of changing these laws will be to them and their intellectual property. He points out that Creative Commons is not anti-copyright but a rights management tool based on copyright, it is not public domain but gives certain rights in advance and it is not anti commercialisation.

Creative Commons, a not-for-profit organisation based in the US, is a set of pre-formulated licences covering the full spectrum of licences from "*all rights reserved*" through to "*public domain*" and that

allows more uses than traditional copyright laws. In other words, some rights can be and are reserved. The Creative Commons licence has been ported (“translated into the legal jurisdiction of a country”) to more than 50 countries around the world. Dr Schonwetter cited numerous examples of works already covered by Creative Commons licences; this includes MIT’s OpenCourseWare, the UK Open University’s OpenLearn, UCT’s OpenContent repositories and aspects of Wikipedia.

In concluding his address Dr Schonwetter described how users would go about licensing their creative work using one of the six possible Creative Commons licenses. From these six possible licences only two are preferred, viz. CC-BY and CC-BY-SA, and appear to be the best Creative Commons licences for OER.

## **7. GROUP DISCUSSIONS**

(Chair: Ms S Uvalic-Trumbic, UNESCO)

The forum participants were broken into smaller groups and each group had to brainstorm the questions below. Feedback from the groups was provided in a plenary session and has been aggregated below each question. One of the groups emphasised that OER are not what the developed world makes available to the developing world but are about institutions collaboratively developing high quality materials to enhance the quality of teaching and learning and could involve making use of existing quality materials available under open licences. Another group called for UNESCO and COL to continue working together on this project and so included COL in each of the questions.

A number of very concrete proposals were made. In general there appeared to be agreement for a policy framework, the need to facilitate networks and networking and continuation of advocacy, especially using case studies.

### **7.1 WHAT KIND OF POLICY SUPPORT DO YOU NEED FROM UNESCO/COL? [ANNEX 2 : TABLE OF FOLLOW UP RECOMMENDATIONS]**

Six broad themes arose out of the feedback:

- Advocacy and awareness raising
  - Awareness raising and capacity building at all levels but more especially amongst teachers and researchers
  - Co-ordination of inputs from various sources. This could be done via a portal or the OER platform
- Policy briefs and frameworks
  - Framework and guidance documents for OER policy and sustainability at national and regional level
  - Development of case studies especially aimed at leadership at all levels in the education system
  - Development of policy briefs that include concrete examples of good OER, links to resources, especially from the developing world, and standard setting.

- Government involvement
  - Encourage governments to engage in OER by raising their awareness of the potential benefits and value proposition of OER so that OER can be included in national educational policies
  - Encourage government aid programmes for education to dedicate part of their budgets on OER activities
  - UNESCO with assistance from COL needs to develop a guide to OER specifically targeting governments. This guide should include quality and standard frameworks so that it is easier for the proponents to advance the OER objectives
  - Ministries responsible for higher education need to be made aware of OER and be involved in policy discussions
  - UNESCO should be ensuring that at top level inter-governmental forums they include OER issues and considerations on the agenda
- Workshops and forums
  - International and national conventions/conferences/workshops targeting OER and open education should continue including more people involved in the grassroots development of OER
- Liaison with civil society
  - Liaise with civil society to make OER more readily available in the formal and non-formal education sectors
- Quality assurance
  - UNESCO needs to drive the OER quality agenda through the development of policy and policy guidelines

## **7.2 HOW CAN UNESCO/COL FACILITATE NETWORKING IN OER?**

Five themes were identified from the feedback provided by the groups:

- UNESCO as an organisation
  - UNESCO should facilitate cross-border collaborations
  - There is a need for the various sectors within UNESCO and the UNESCO regional/field offices and agencies (e.g. IITE) to work more closely with one another so that OER activities can be co-ordinated
  - UNESCO chairs need to be appropriately represented on all continents and these chairs should meet at regular intervals
- Capacity-building
  - UNESCO can assist countries to identify and train people in higher education in various aspects of OER (e.g. identification, quality assurance, development, re-purposing, etc.)
  - Managers of search engines could become more involved
- Networking opportunities and platforms
  - Create international knowledge networks using technologies such as Twitter
  - Mechanisms for continuing online discussions to improve the knowledge flow between individuals and organisations
  - UNESCO should create regular dissemination activities and use these to exchange ideas and information. This could take the form of online newsletters.

- Create a virtual content sharing platform so that discussions, content, files, etc. can be shared amongst community members.
- Collaboration with organisations
  - UNESCO needs to partner with existing organisations and associations in a policy dialogue to advance the importance of OER at all levels using existing networks. Examples include the African Union, ADEA, and other regional organisations and associations.
  - Networks need to be established between all role-players including public and private sectors, civil society organisations and NGOs
- Conferences and workshops
  - Organisation of workshops and forums to create and improve the momentum of OER and open education issues

### **7.3 HOW CAN YOU SEE OER MAKING AN IMPACT ON HIGHER EDUCATION?**

The groups identified six broad themes in their feedback.

- Collaboration
  - Student involvement in the development of resources as part of their learning process
  - Collaboration between institutions could lead to not only improved (quality and content-wise) teaching and learning resources and reduction in costs but also to sharing of human resources
  - OER produces a very positive impact on sharing of resources and can even the distribution of resources that are currently unevenly distributed. Reduction of need to produce their own resources
  - Top, world-class universities provide curricula and materials to developing nations. There was a suggestion of visiting professor programmes tied to OER, curriculum development and encouraging the development of OER programmes
- Reputational enhancement
  - Good OER could enhance the reputation of those institutions producing the OER
- Access and cost
  - Collaboration between institutions could lead to reduction in costs as the development costs will be shared
  - Costs of learning materials could be reduced if OER are used. This applies across all institutions of higher learning but more especially to those in developing countries where the cost of traditional learning materials is extremely high
  - Given the current economic climate with education budgets being cut in many countries the use of OER can assist in addressing issues around access to resources
  - An OER framework could unlock the current resources stored on the computers of university academics around the world and make them accessible with appropriate acknowledgement to the original author
  - Students from disadvantaged communities will be able to afford access to institutions of higher learning



- Issues of quality
  - OER has a role to improve quality in higher education through educational innovation
  - Even for public universities the availability of OER will impact their educational delivery and can improve their existing materials. This will lead to an improvement in quality of educational delivery even within face to face delivery
  - Quality control remains an issue and there is still a need for resources to be peer reviewed
  - The negative impact due to the proliferation of content and the possibility of resources that are lacking in quality and credibility could interfere with access to better quality resources
  - The use of OER could improve the quality of teaching
- Changing role of higher education institutions
  - Evidence has shown that students are starting to use resources other than attending lectures and that this phenomenon could lead to universities changing their role
  - Need for a shift in culture. OER can expose students to resources developed by others which will enhance their learning experience
  - Best practices in open universities can influence best practice in public universities. There is a strong belief that OER is not just for open universities but can be used for any university
  - OER is about more than just content it is also about the practice of open education, including open educational practices
- The publishing industry
  - Disaggregation of the value chain of learning leading to different thinking around issues, the need to involve the publishing industry and changes in the teaching and learning processes
  - Publishers will need to adapt their current practices in line with OER principles in order to survive

#### **7.4 HOW CAN UNESCO MAKE A DIFFERENCE?**

The groups considered that UNESCO

- is ideally placed to foster a brokering role on multiple levels (from institution through to regional and international) and also in subject-based communities and to promote OER in the international context. The focus should now also be changing to the re-use and identification of OER and not just on the development of OER.
- should be driving an international agenda by persuading governments (at political and decision-making levels) to change the quality of teaching and learning through the use of OER. The adoption of OER could lead to significant cost savings in the education budgets thereby freeing up funds for other projects.
- should not only continue raising awareness but should be partnering with “*information movements*” to convert policies into implementation plans.
- needs to ensure that it “*walks the talk*” by ensuring that its own publications are released as OER.

- has a central role to play in sharing experiences, creating thematical discussion points, providing guidelines and suggested models.
- could make case studies available, not as academic publications but rather as “*advocacy through stories*”, that can be shared through networks.
- has a crucial role to play by adding its voice to discussions around international and national copyright laws.

## **8. MESSAGES FROM COUNTRIES**

An opportunity was provided to four selected countries to provide some feedback on the Forum and also the work they are doing around OER.

### **8.1 GERMANY**

Her Excellency, Ms Martina Nibbeling-Wrießnig , Ambassador for Germany at UNESCO, raised a number of points stemming from her participation in the forum. She noted that the forum had emphasised the need to take greater care of higher education but argued for more attention to girl-students as studies show that the drop-out amongst them is highest in secondary schools and higher education. Using e-technologies there is a chance to effectively address this issue and at a reduced cost. UNESCO needs to provide more public awareness about OER and higher education needs to be placed higher on the international agenda. She suggested that UNESCO needs to talk to publishers of “Internet-content” about issues relating to copyright. The circle of potential OER partners needs to be broadened to include not only COL but other similar organisations, specifically in relation to the issue of language. In addition UNESCO was encouraged to talk to radio stations especially those that have broad international reach such as France, Germany, the UK and the US, in order to use this channel to promote the use of OER. All governments should be encouraged to place links to OER on their websites. Capacity-building programmes in developing countries should be embarked upon to facilitate the development of indigenous or country-specific OER around aspects such as their history, archaeology and biodiversity. Consideration should also be given by UNESCO to a presentation to the permanent delegates (making use of OER in the presentation) before the next General Council meeting – this to broaden their understanding of OER.

### **8.2 FRANCE**

Ms Christina Akrivou of the Agence universitaire de la Francophonie (AUF) noted the absence in the Forum of examples drawn from the Francophone world and consequently that there is a need to showcase examples of OER that have been developed elsewhere in the world. A project similar to the TESSA project is being run in the Francophone African countries using OER developed by the AUF – she called for a strengthening of this project. Akrivou highlighted the recommendations of the Dakar Declaration regarding OER that were currently being implemented – these include awareness raising, the development of a common charter for the formalisation and classification of OER.

### **8.3 MAURITIUS**

Mr Ricaud Auckbur, Director in the Ministry of Tertiary Education, Science, Research and Technology in Mauritius highlighted that the development of OER is fundamental to higher education in Mauritius and that OER needed to be contextualised to meet the specific needs of the country.

Mauritius develops OER using the frameworks devised in the VUSSC processes. MrAuckbur informed the Forum that Mauritius was currently in the process of establishing an open university where the use of OER would lead to efficiencies and savings in development costs. The creation and adaptation of OER allows Mauritius to confidently introduce programmes as specific needs arise.

#### **8.4 KOREA**

Ms Hye-Kyung Yang, principal researcher at the Korean Education and Research Information Service (KERIS), provided some background to the OER developments in Korea which started in 2003. Korea is divided into 10 regions each with a university e-learning support centre (UESC). These UESCs cooperate with other institutions in the region to produce and share e-learning and online digital materials. The production facilities (camera, lecture theatre, studio, etc.) at each UESC were centrally funded. A survey was conducted amongst Korean universities to determine how many digital materials and online lectures each had. More than 5 000 e-learning courses were identified the majority of which were internal to the institution and not open. At ministerial level the quality of higher education was a concern and global competitiveness had become a policy priority. OER have been used to leverage the quality of higher education. After consultation with universities and students a national plan for promoting OER had also been developed. A national repository of OER which collects metadata of e-learning lectures of Korean universities was launched in 2007. OER copyright guidelines (including open licencing) in the Korean legal framework were published in 2008. Public funds are used to publish under-graduate OER materials. In 2010 a portal (KOCW) was launched that links to the OER at 17 cyber-universities and the 10 UESCs.

### **9. CLOSING CEREMONY**

In his closing comments Dr Tang indicated that UNESCO will be paying special attention to higher education which is a need in both developed and developing countries. Additional resources and efforts will be deployed in this area and the higher education team would be reinforced. This programme will focus on three aspects, viz. (1) quality assurance of higher education including the possibility of ranking; (2) diversification of the provision of higher education, funding, public/private provision of higher education; and (3) the use of OER in higher education.

Dr Tang indicated that UNESCO needs to determine its entry point in respect of OER. By virtue of its international standing UNESCO needs to focus on those things that others cannot do and not duplicate efforts already being undertaken by others. An example of where they could be more involved is the quality assurance of OER.

UNESCO will continue to work with partners, including the CI sector at UNESCO and UNESCO field offices, and partners such as COL, but also forum participants and the broader OER community. UNESCO and the partners need to work together to reap the potential benefits of OER.

ANNEX I. List of Participants

Annex II. List of Proposed Follow up Actions

## 10. APPENDICES

Papers and other documents presented at the workshop can be found at [:http://oerworkshop.weebly.com/policy-forum.html](http://oerworkshop.weebly.com/policy-forum.html)

Other websites referred to during the policy forum:

ACA2K Project: [www.aca2k.org/](http://www.aca2k.org/)

AHELO Project: [www.oecd.org/edu/ceeri](http://www.oecd.org/edu/ceeri)

Apple's iTunes U: [www.apple.com/education/itunes-u/](http://www.apple.com/education/itunes-u/)

Asia e University: [www.aeu.edu.my/](http://www.aeu.edu.my/)

Athabasca University: [www.athabascau.ca/](http://www.athabascau.ca/)

Carnegie Mellon University: [www.cmu.edu](http://www.cmu.edu)

CK12 Flexbook: [www.ck12.org/flexbook/](http://www.ck12.org/flexbook/)

Commonwealth of Learning: [www.col.org](http://www.col.org)

Creative Commons: [www.creativecommons.org](http://www.creativecommons.org)

dotSUB: <http://dotsub.com/>

Khan Academy: [www.khanacademy.org/](http://www.khanacademy.org/)

KNUST: <http://web.knust.edu.gh/oer/>

LibriVox: <http://librivox.org/>

MIT OpenCourseWork: <http://ocw.mit.edu>

OER Africa: [www.oerafrica.org](http://www.oerafrica.org)

OLnet: <http://olnet.org/>

Open Education Quality Initiative: <http://oer-quality.org/>

Open Research Online: <http://oro.open.ac.uk/>

Open University English in Action: [www.eiabd.com/eia/](http://www.eiabd.com/eia/)

Open University on iTunes U: <http://open.edu/itunes/>

OpenLearn channel on YouTube: [www.youtube.com/user/openlearn](http://www.youtube.com/user/openlearn)

OpenLearn: <http://openlearn.open.ac.uk>

The TESSA Project: [www.tessafrica.net](http://www.tessafrica.net)

UCT's OpenContent: <http://opencontent.uct.ac.za/>

UNESCO/COL OER Project: <http://oerworkshop.weebly.com>

UNESCO: [www.unesco.org](http://www.unesco.org)

UNESCO's Communication and Information Section: [www.unesco.org/webworld](http://www.unesco.org/webworld)

UNESCO's Education Section: [www.unesco.org/new/en/education/](http://www.unesco.org/new/en/education/)

University Futures Project: [www.oecd.org/edu/ceri](http://www.oecd.org/edu/ceri)

WCHE 2009: [www.unesco.org/en/wche2009/](http://www.unesco.org/en/wche2009/)

YouTube EDU: [www.youtube.com/edu](http://www.youtube.com/edu)