





United Nations
Educational, Scientific and
Cultural Organization



UNESCO Institute
for Information Technologies
in Education

International Conference
Moscow, 13-14 November

IITE-2012

ICT in Education:

Pedagogy, Educational Resources and Quality Assurance

Open Educational Resources (OER): The Coming of Age of ICT in Education?

Sir John Daniel & Stamenka Uvalić-Trumbić
Education Masters, DeTao Masters Academy, China



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In Principle:

ICT can improve education

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ICT can improve education

In Practice:

Results are disappointing

Improving Education?

- ACCESS (wider)
- QUALITY (higher)
- COST (lower)

ALL AT THE SAME TIME!

PLAN

- Potential of ICT

PLAN

- Potential of ICT
- The Record

PLAN

- Potential of ICT
- The Record

Weaknesses:

1. Planning
2. Training
3. Materials

PLAN

- Potential of ICT
- The Record

Weaknesses:

1. Planning
2. Training
3. Materials - OER

WHY

do

ICT

inspire dreams

of

transforming education

???

Teaching and Learning

=

Manipulation of symbols
(Words, Numbers, Formulae,
Images...)

Contemporary ICT are KNOWLEDGE MEDIA

“knowledge is a dynamic process
– a living thing”



Teachers cannot pour knowledge into
students' heads!

Contemporary ICT are KNOWLEDGE MEDIA

“knowledge is a dynamic process
– a living thing”

“science is less a statement of truth
than a running argument”

'essential reading for all involved in higher education'
TIMES HIGHER EDUCATION SUPPLEMENT

Mega- Universities & Knowledge Media

Technology Strategies
for Higher Education

John S Daniel

“ICT will become an increasingly powerful asset to education as its capacities for interactivity and data-linking continue expand”

The Practice of Education

“the Internet is an extraordinary vehicle for the wide distribution of information, knowledge and educational material at low cost.”

BUT...

**ICT has not yet
fulfilled this
potential**

‘there are no technology shortcuts to good education. For primary and secondary schools that are underperforming... efforts to improve education should focus... on better teachers and stronger administrations.

Technology has a huge opportunity cost (compared to) more effective non-technology interventions.’

Toyama (2011)

JOHN S. DANIEL

open &
flexible
learning
series



MEGA-SCHOOLS, TECHNOLOGY AND TEACHERS

ACHIEVING EDUCATION FOR ALL

ROUTLEDGE





The OLPC XO-1 laptop

One Laptop Per Child

Education in Peru

Error message

A disappointing return from an investment in computing

Apr 7th 2012 | LIMA | from the print edition

 Like

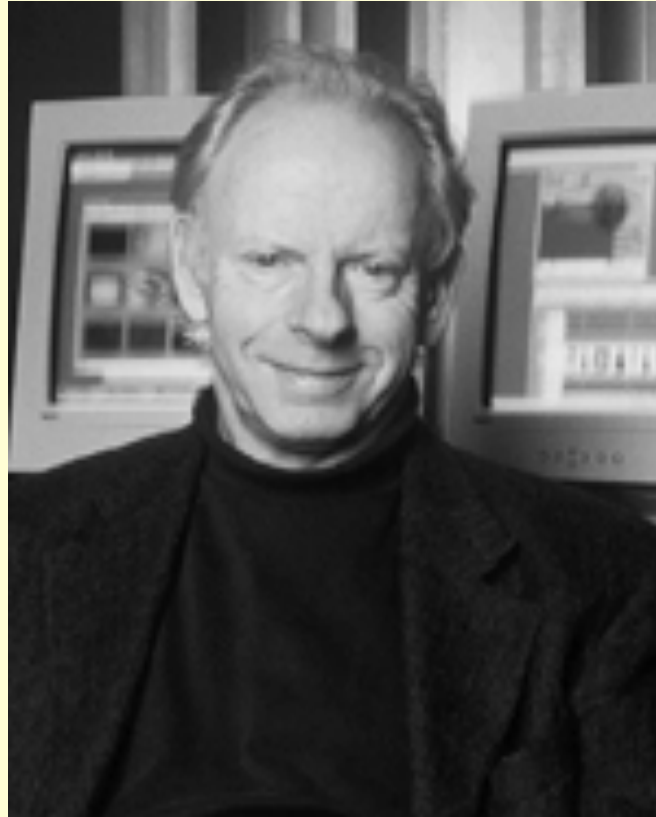
2.3k

 Tweet

796



eyevine



Professor Tony Bates
**"2011 Outlook for Online Learning and
Distance Education"**

(www.contactnorth.ca)

SADLY...

- goals for eLearning are unambitious
- costs are rising
- no evidence of better learning outcomes
- failure to meet quality standards

Why are ICT underperforming?

Why are ICT underperforming?



Politicians dazzled by the headlights
of oncoming technology

THREE VITAL PRELIMINARY STEPS

- Objectives: to achieve what?



Bangkok

THREE VITAL PRELIMINARY STEPS

- Objectives: to achieve what?
- **Trained teachers**



ICT Competency Framework
for Teachers



Commonwealth Certificate
for Teacher ICT Integration

THREE VITAL PRELIMINARY STEPS

- Objectives: to achieve what?
- Trained teachers
- **ICT-rich Learning Material**
Open Educational Resources

Sharing Learning Materials

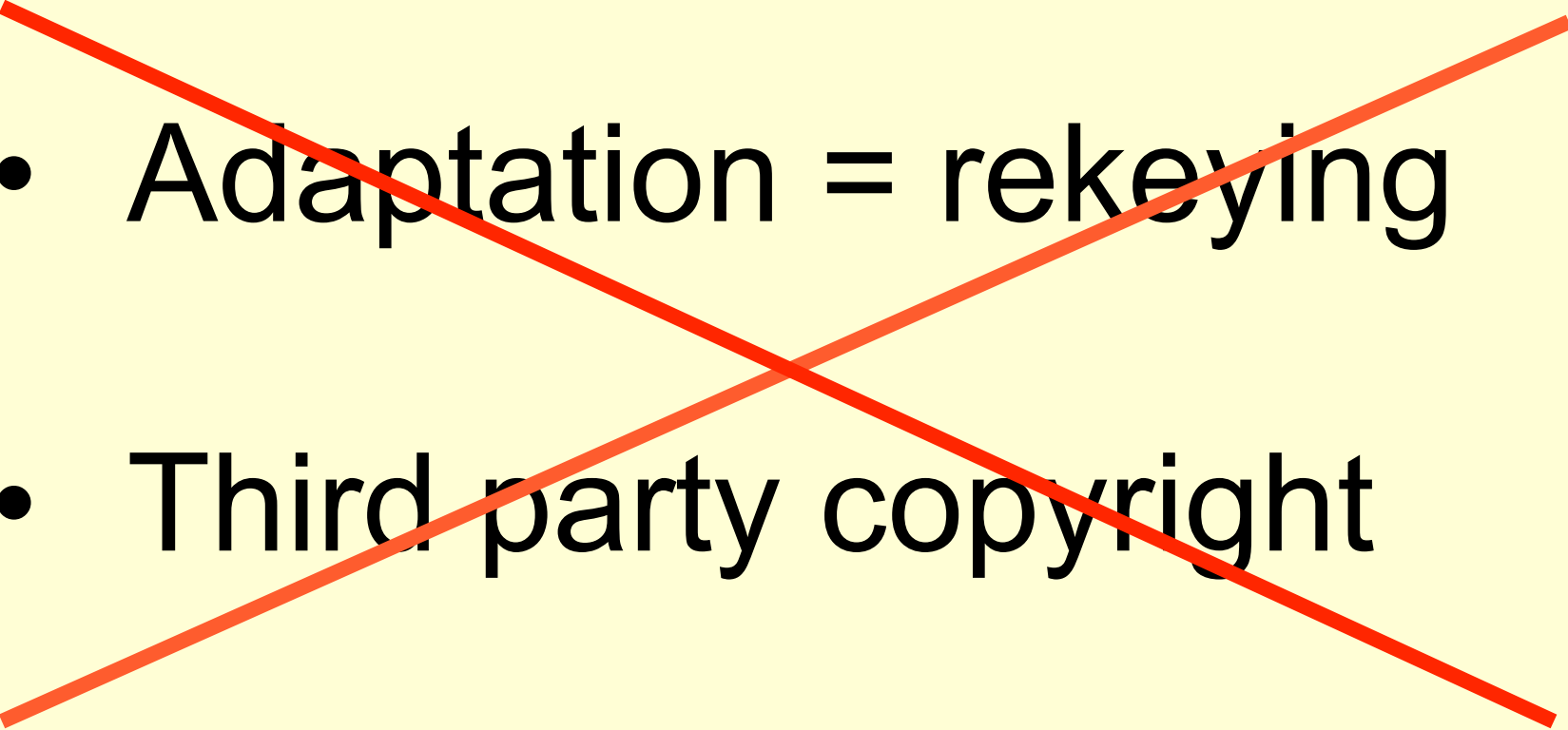
Super in principle!

Tough in practice!

Sharing Learning Materials

- Adaptation = rekeying
- Third party copyright

Sharing Learning Materials

- Adaptation = rekeying
 - Third party copyright
- 

OPEN EDUCATIONAL RESOURCES (OER)

**educational
materials that may
be freely accessed,
reused, modified and
shared.**

THE TREND TOWARDS OPENNESS

- Open Source Software



- Open Access to Research



- Open Educational Resources



Collaborative Development of OER

COL & Hewlett Foundation



20 sets of self-instructional materials
in the secondary curriculum
(each is a complete syllabus for one grade 10 or 12 subject)



UNESCO HQ Paris

**2002 Forum on the Impact of Open CourseWare
for Higher Education in Developing Countries**



United Nations
Educational, Scientific and
Cultural Organization

2002 FORUM on the Impact of Open CourseWare for Higher Education in Developing Countries

Declaration:

Participants expressed:

“their satisfaction and their wish to develop together a universal educational resource for the whole of humanity, to be referred to henceforth as **Open Educational Resources**”

World Congress on
Open Educational Resources
Paris – June 20-22 – 2012



The World Conference on Higher Education Paris - July 2009: *New Dynamics of HE*





United Nations
Educational, Scientific and
Cultural Organization

Taking OER beyond the OER Community: Policy & Capacity for Developing Countries



**Zeynep
Varoglu**



**Trudi
van Wyk**

Workshops

South Africa

Namibia

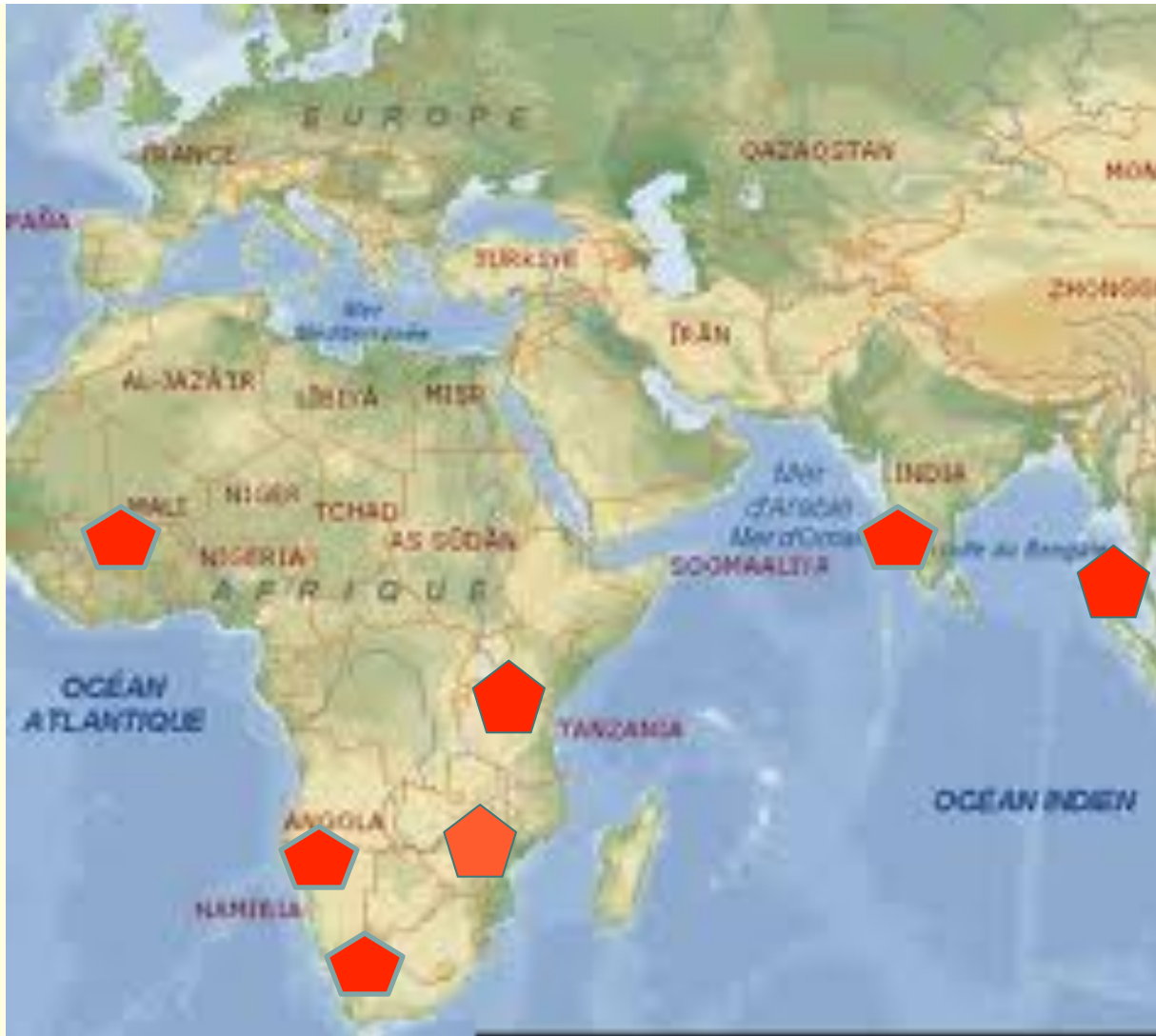
Malaysia

Mali

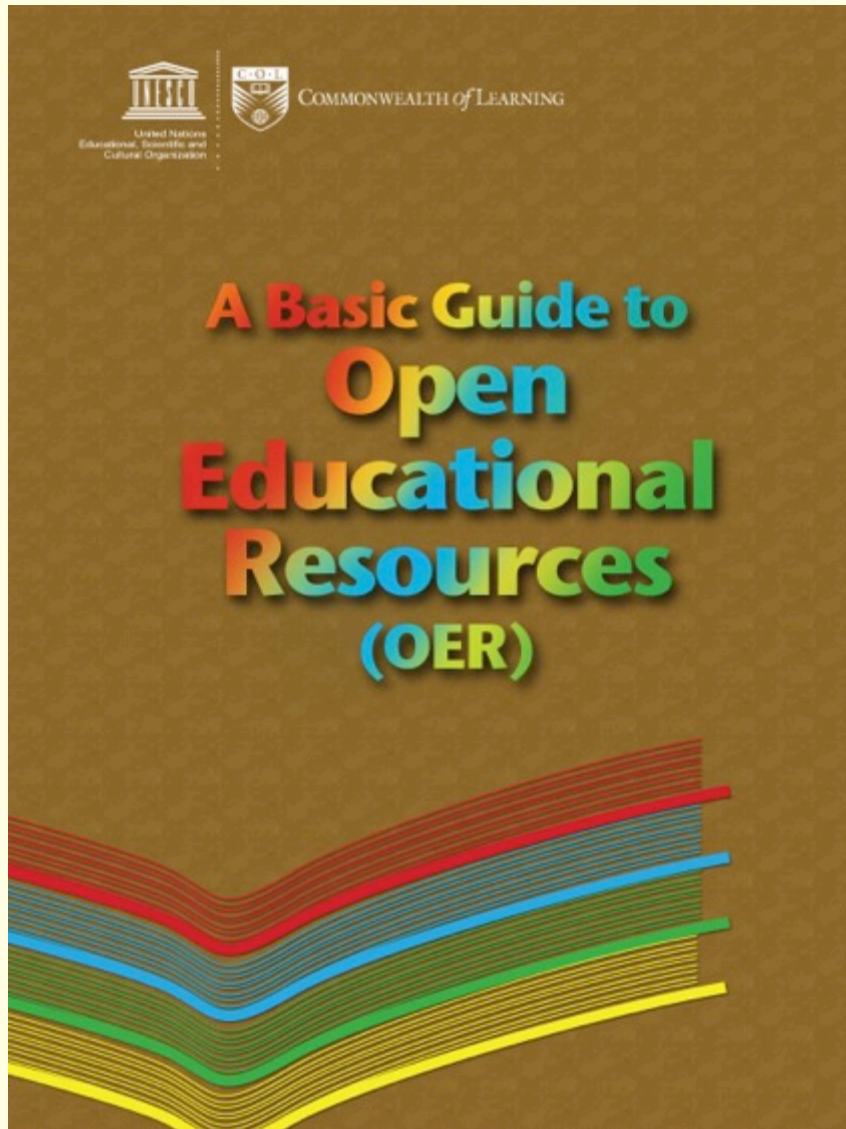
India

Tanzania

Mozambique



Plus three online forums



col.org/resources



Neil Butcher



Stamenka
Uvalić-
Trumbić



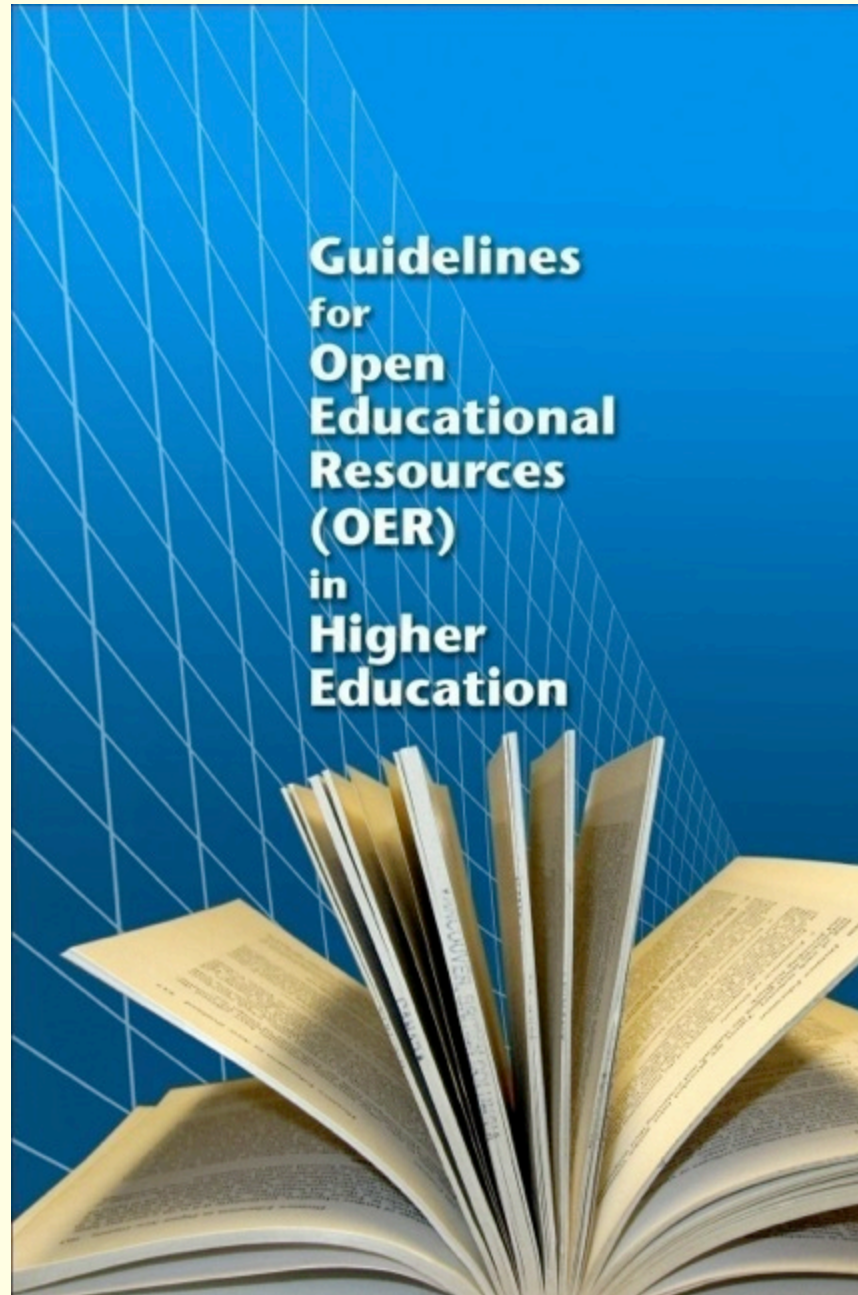
Asha
Kanwar



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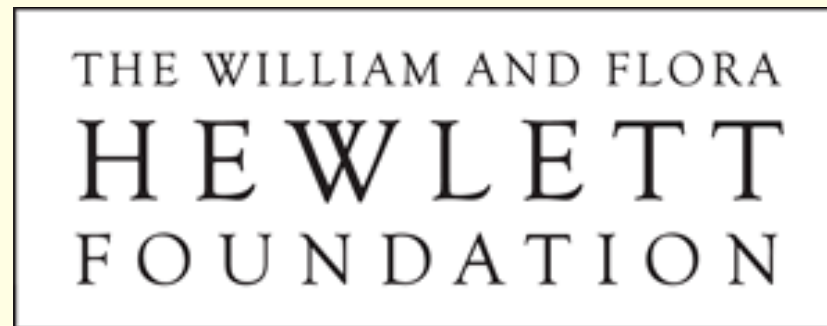


Zeynep
Varoglu



Trudi
van Wyk

Fostering Governmental Support for Open Educational Resources Internationally

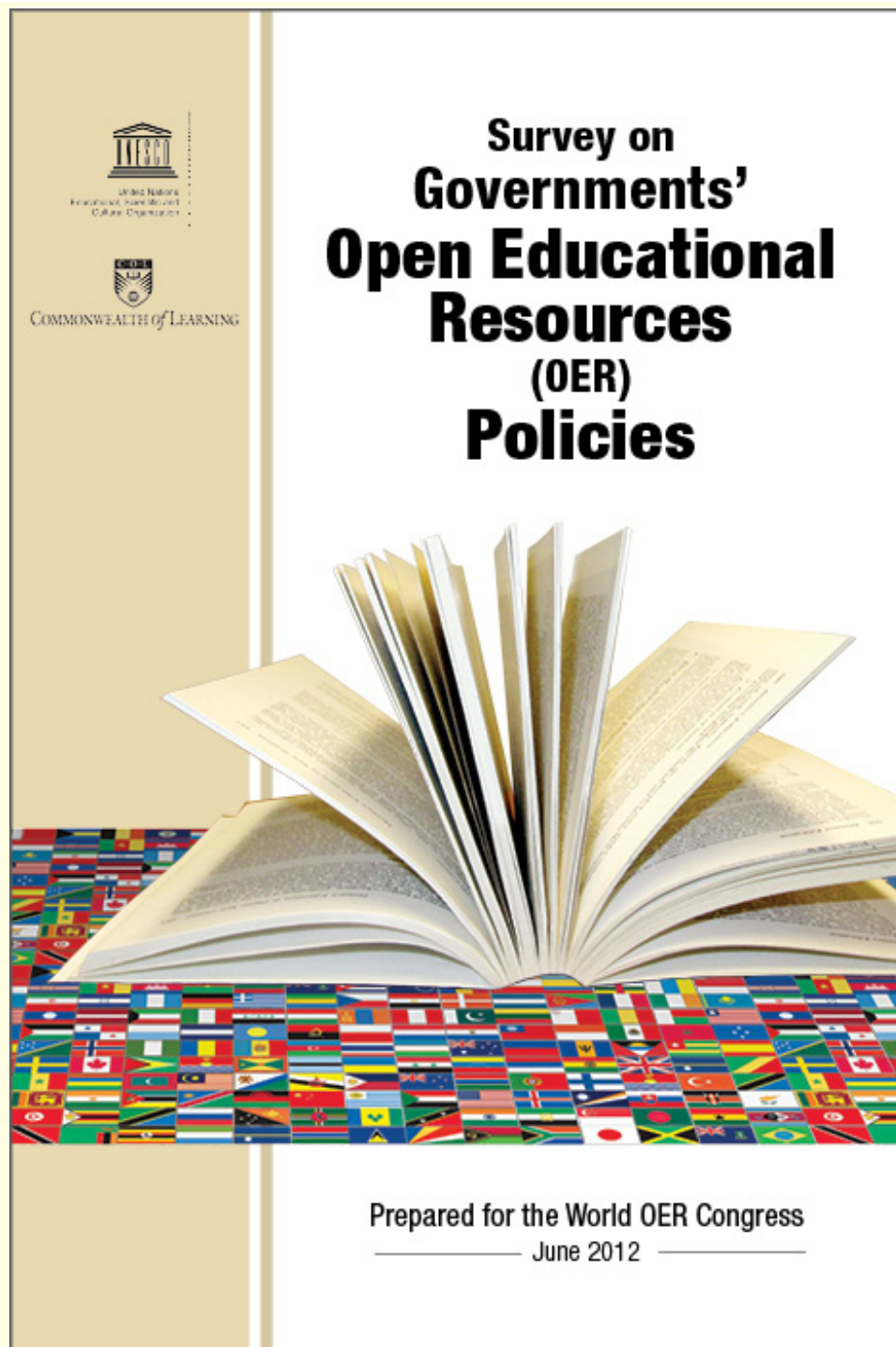


QUESTIONNAIRE SURVEY

Responses from ~ 100 countries



Sarah
Hoosen



“There appears to be great interest in OER across all regions of the world, with several countries embarking on notable OER initiatives. Indeed, the survey itself raised interest and awareness of OER in countries that may not have had much prior exposure to the concept.”

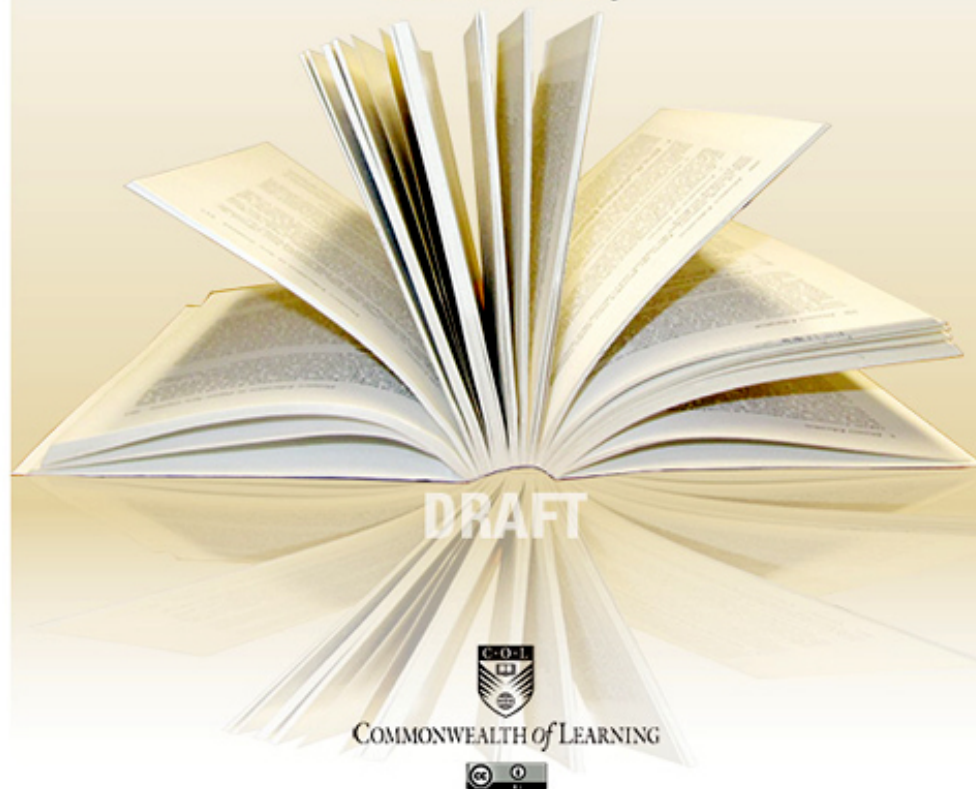
Hoosen Report

WHY OER?

- Idealism
- Economics

Exploring the Business Case for **OER**

Prepared by Neil Butcher and Sarah Hoosen
for the Commonwealth of Learning



Neil
Butcher



Sarah
Hoosen

The Business Case for OER

- Resource-based learning
- OER reduce costs
- Better approaches to textbooks

...there appears to be some confusion regarding understanding of the concept and potential of OER.

Many projects are geared to allowing online access to digitized educational content, but the materials themselves do not appear to be explicitly stated as OER.

Where licences are open, the Creative Commons framework appears to be the most widely used licensing framework, but licensing options varies between countries.

Hoosen Report

Open Licensing

AUTHORS

- OER within copyright legislation

USERS

- Assurances & restrictions

Open Licensing

No consensus on
'non- commercial'
restriction

Regional Policy Forums

- Dialogue between governments and practitioners
- Promote World OER Congress
- Consult on Paris Declaration

The Paris Declaration

- Principles and aims – not implementation
- Focus on OER – not open source/access
- Avoid technical language

Regional Policy Forums

- Caribbean – January
- Africa – February
- Latin America – March
- Europe – April
- Asia & Pacific – April
- Arab States - May

10 Caribbean jurisdictions reported on the status of OER

**Antigua &
Barbuda**

The Bahamas

Belize

Grenada

Guyana

Jamaica

**St. Vincent &
the
Grenadines**

**St. Kitts &
Nevis**

**Trinidad &
Tobago**

**Cayman
Islands**

Barbados, January 2012



**ICT in Education Leadership
Forum in the Caribbean
&
Caribbean OER Policy Forum**

17 African Nations reported on their Status of OER

Results of OER Survey Questionnaires (February 2012)



Botswana

Cameroon

Ghana

Kenya

Lesotho

Madagascar

Malawi

Mauritius

Mozambique

Namibia

Niger

Rwanda

Seychelles

South Africa

Swaziland

Tanzania

Zambia



Professor
Mandla Makhanya

Principal & VC



UNISA | 
university
of south africa



Health OER
Inter-Institutional
Project



Kwame Nkrumah University of Science and Technology

The University of Science and Technology succeeded the Kumasi College of Technology which was established by a Government Ordinance on 6th October, 1961. Following the report of a University Commission which came out early 1961, Government decided to establish two independent Universities in Kumasi at Legon near Accra. The Kumasi College of Technology was thus transformed into a full-fledged University Kwame Nkrumah University of Science Technology by an Act of Parliament on 22nd August, 1961. By another act of Parliament, Act 559 of 1998, the University has been renamed Kwame Nkrumah University of Science and Technology, Kumasi.

Africa Policy Forum Pretoria (February 2012)



- Connectivity/electricity
- Sharing OER across languages
- Research on OER
- New business models to include industry

Regional Policy Forum for Latin America March 2012



10 Latin American Nations reported on their Status of OER

Argentina

Brazil

Chile

Colombia

**El
Salvador**

Guatemala

Mexico

Paraguay

Peru

Uruguay



Regional Policy Forum for Latin America

March 2012



- Preamble: Internationally agreed statements
- Clarify and simplify
- Strategic alliances
- “Appropriate legal frameworks”
- Open licences “with restrictions as judged necessary”

Europe Regional Policy Forum Cambridge, UK – April 2012



18 countries reported on their OER policies/intentions

Armenia

Austria

Azerbaijan

Belgium

Bulgaria

Canada

Cyprus

Finland

Hungary

Italy

Latvia

Lithuania

Malta

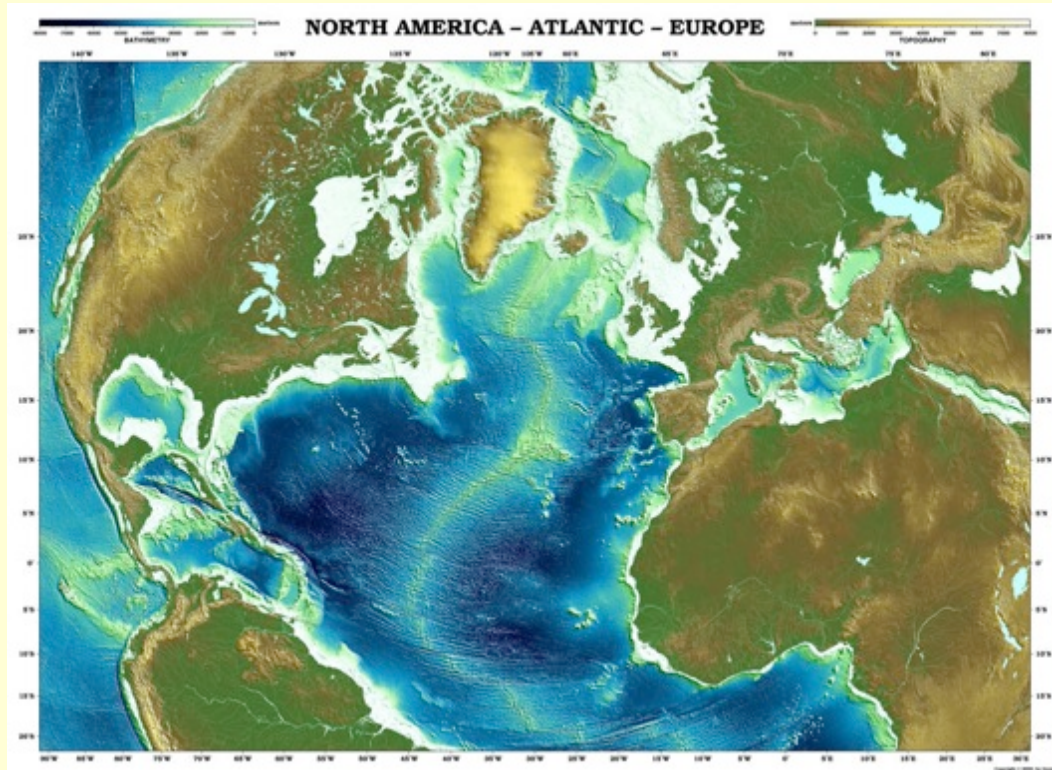
Monaco

Netherlands

Poland

Slovenia

USA



Europe Regional Policy Forum Cambridge, UK – April 2012



- Longer definition of OER (earlier formulation)
- Encourage private sector and NGOs to participate

Asia – Pacific Regional Policy Forum Bangkok – April 2012



19 countries reported on their OER policies/intentions

Australia	Brunei	China
Fiji	Indonesia	Iran
Kazakhstan	Korea	Malaysia
Mongolia	New Zealand	Pakistan
Philippines	Samoa	Sri Lanka
Thailand	Uzbekistan	Vanuatu
	Vietnam	



Government policies in place

‘open licensing of materials’



Australia



China



Korea



Indonesia



Thailand

AusGOAL

Australian Governments Open Access and Licensing Framework

Overview

Open Access

Using AusGOAL

data.x.gov.au

Research

Inn



Intellectual Property Policy and Best Practice Guidelines

Geoscience Australia incorporates AusGOAL into IP Policy... [more](#)

BEST PRACTICE GUIDELINES

This section addresses typical Geoscience Australia activities, relationships or transaction types in which IP is dealt with.

- IP transactions or activities differ according to:
- whom Geoscience Australia is dealing with (the stakeholders)
 - what IP subject matter is involved in the dealing
 - when in its life cycle it is to be dealt with
 - whether Geoscience Australia is involved in that activity or transaction
 - opportunities and risks that arise from the activity, relationship or transaction.

HUMAN RESOURCE RELATED IP ISSUES

unless a waiver with questions employees IP's with their sup

Study

Where the or area of geoscience own IP in a study purpose Where emp Geoscience Geoscience of people in the employ arrange Second





China

Video Open Courseware Project

**Open Digital Learning
Resources for Continuing
Education**

Asia – Pacific Regional Policy Forum

Bangkok – April 2012



- Add CONFINTEA in preamble
- Open licencing does not affect authorship
- Capacity building; incentives, indigenous knowledge
- Action verbs instead of statements

Arab States Regional Policy Forum

Muscat, Oman – May 2012



11 countries reported on their OER policies/intentions

Algeria

Bahrain

Iraq

Jordan

Lebanon

Morocco

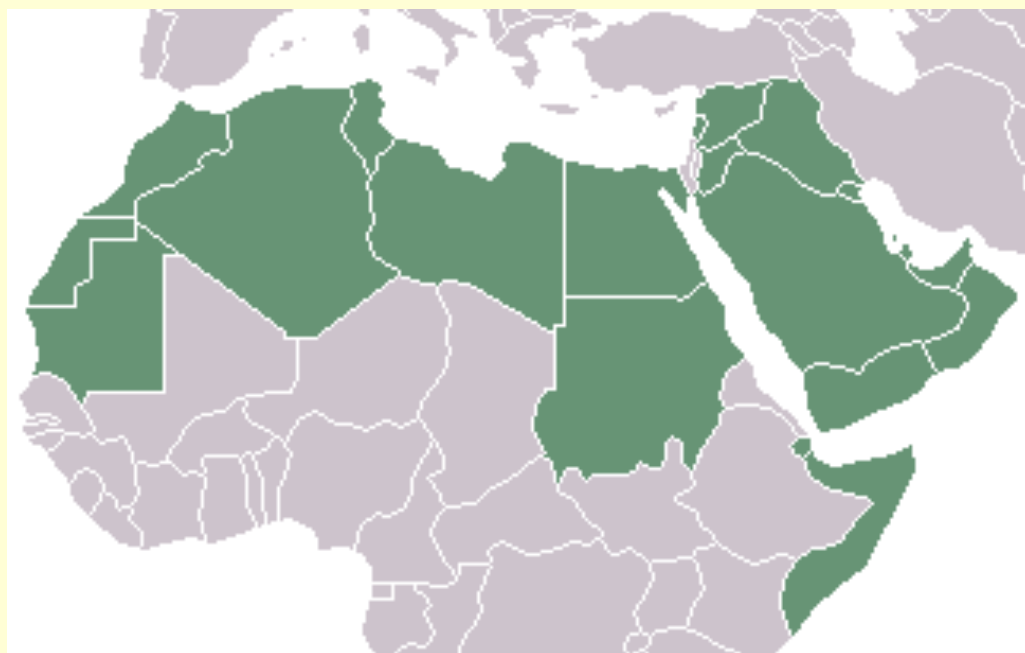
Oman

Qatar

Sudan

Tunisia

Yemen



No countries have explicit policies on OER

but

five countries have strategies relating to eEducation, eLearning or ICTs that could be extended to OER



Algeria



Bahrain



Jordan



Lebanon



Morocco



In Morocco the Ministry of Education has created a National Laboratory of Digital Resources, which is in charge of the production and labeling of digital educational resources. Some resources were produced as OER.

In addition, an official ICT website of the Ministry, with a management platform for open source content "DRUPAL", has been created.

Arab States Regional Policy Forum

Muscat, Oman – May 2012



- Add reference to Millennium Declaration in Preamble
- Add item on the need for policies and strategies
- Refer to “open standards digital formats”

Importance of government involvement

- Governments make policy and steer education systems
- Governments pay for large amounts of educational material

World Congress on
Open Educational Resources
Paris – June 20-22 – 2012



The Paris Declaration

Online version of
this document:



PROGRAMME



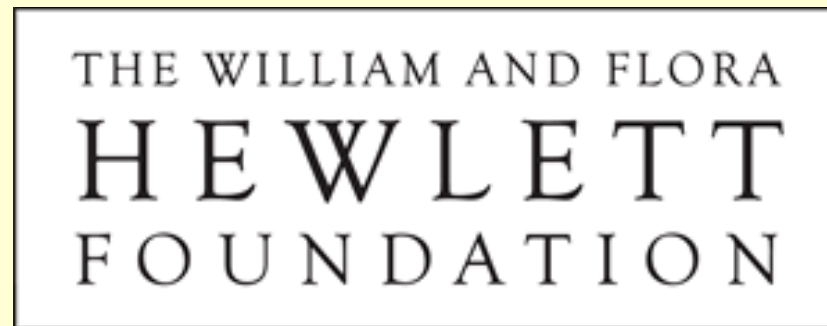
United Nations
Educational, Scientific and
Cultural Organization



Open
Educational
Resources

**2012 World
Open Educational Resources
Congress** Paris
20-22 June
UNESCO Headquarters
Paris, France

Fostering Governmental Support for Open Educational Resources Internationally



World Congress on
Open Educational Resources
Paris – June 20-22 – 2012



The Paris Declaration

Paris Declaration on OER

1. Foster awareness and use of OER.
2. Facilitate enabling environments for the use of ICT.
3. Reinforce the development of policies and strategies on OER.
4. Promote the understanding and use of open licensing frameworks.

Paris Declaration on OER

5. Support capacity building for the sustainable development of quality learning materials.
6. Foster strategic alliances for OER.
7. Encourage the development and adaptation of OER in a variety of languages and cultural contexts.
8. Encourage research on OER.

Paris Declaration on OER

9. Facilitate finding, retrieveing and sharing of OER.

10. Encourage open licensing of educational material produced with public funds.



The Paris Declaration

Is not legally binding but
governments use such declarations
as a guide to policy making and this
is already happening with this
Declaration on OER

THE AIM

“to encourage governments to promote OER and the use of open licences...

(because)

...governments will be major beneficiaries thanks to the potential of OER to improve the cost-effectiveness of their large investments in education.”

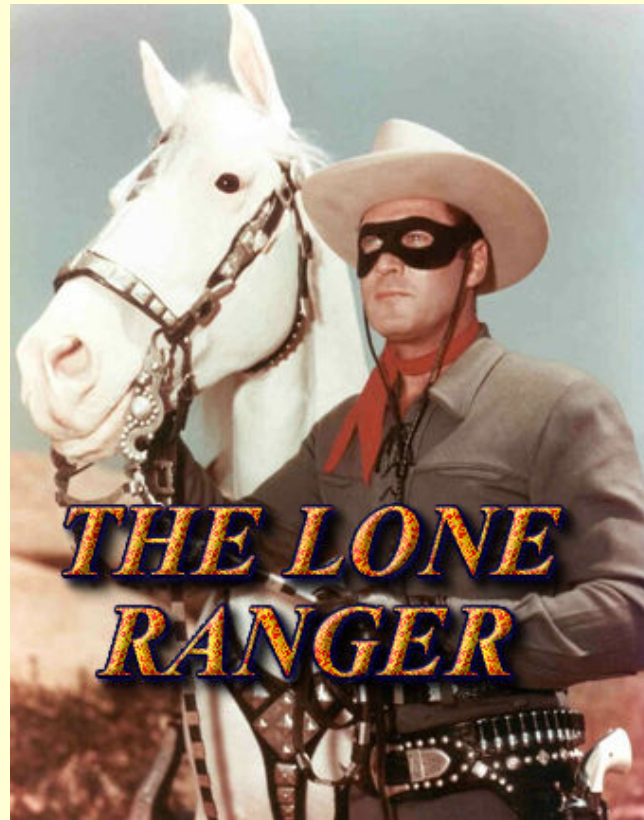


UNESCO HQ Paris

**2002 Forum on the Impact of Open CourseWare
for Higher Education in Developing Countries**

THREE VITAL PRELIMINARY STEPS

- Objectives: to achieve what?
- Trained teachers
- ICT-rich Learning Material



Better to work in
teams!

THREE VITAL PRELIMINARY STEPS

- Objectives: to achieve what?
- Trained teachers
- **ICT-rich Learning Material**
Open Educational Resources



Open Educational Resources (OER): The Coming of Age of ICT in Education?

Sir John Daniel & Stamenka Uvalić-Trumbić
Education Masters, DeTao Masters Academy, China

THANK YOU

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