Achieving SDG 4: are ICTs the answer?

Professor Asha Kanwar
President & CEO, Commonwealth of Learning
UNESCO, Paris | 6 November 2018
HE Mariam Katagum
Nigeria
UNESCO-COL MOU, 1994

Federico Mayor
Director General, UNESCO

Gajaraj Dhanarajan
President & CEO, COL
2012 World Open Educational Resources Congress
UNESCO Headquarters
Paris, France
20-22 June
Commonwealth Heads of Government Meeting
Vancouver, 1987
To help Commonwealth governments and institutions use technologies to improve and expand access to education and training
ECONOMIC GROWTH

SOCIAL INCLUSION

ENVIRONMENTAL CONSERVATION

Learning for Sustainable Development
GOAL 4

ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal
Leveraging New & Existing Technologies
Our Commonwealth

• Population 2.4 billion, more than 60% under 30
• Youth unemployment high
• 60% of the Commonwealth = small states: affected by climate change
The Plan

• Can SDG4 be Achieved?
• COL’s Six Paradigm Shifts
• What more needs to be done?
• Towards SDG4
Can SDG 4 be Achieved?
Most Solvable SDGs: What of SDG 4?

People are most optimistic about solving for hunger.

Goal 2: Achieving Zero Hunger
Goal 1: Eliminating Poverty
Goal 7: Access to affordable and clean energy
Goal 3: Good health and well-being
Goal 17: Partnerships for the Goals
Goal 8: Decent work & economic growth
Goal 11: Sustainable cities and communities
Goal 16: Peace, justice, & strong institutions

Data are from an online poll of 12,940 respondents from 164 countries conducted between Sept. 13, 2018 and Sept. 29, 2018.

Source: https://www.rockefellerfoundation.org/2018-unga-sdg-survey-thank-you/
To Achieve SDG 4

“The annual cost in low and lower middle income countries is projected to increase from US$149 billion in 2012 to US$340 billion, by 2030.”

“Quality schooling in low income countries will need an increase in spending per primary school student from US$70 to US$197 by 2030.”

In some countries, the poorest children get about US$10 for every US$100 spent on mainstream schools.

“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”

• Where is Lifelong Learning in the targets and indicators?
• Is Literacy a sine qua non of Lifelong Learning?
• What are the mechanisms for Lifelong Learning to integrate formal, non-formal and informal learning by blending pedagogy, andragogy and heutagogy?

Source: [https://www.globalpartnership.org/blog/follow-money-tracking-education-spending-reinforce-accountability](https://www.globalpartnership.org/blog/follow-money-tracking-education-spending-reinforce-accountability)
Challenges

• Business as usual approach
• “Brick and Mortar” mindset
• Not ready for paradigm shifts
COL’s Six Paradigm Shifts
If the child cannot go to school, the school comes to the child.
Education in the Commonwealth

17 million primary aged children not in school

16 million lower secondary youth out of school

3% more boys than girls enrolled in primary schools but boys underrepresented and underperforming at the secondary level

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Open Schooling

• The physical separation of learner from the teacher
• The use of unconventional teaching methodologies, and information and communications technologies (ICTs) for scale
• Flexible approach
• Foster innovation (e.g. on-demand exams; uses of ICT)
Increased Access and Equity

India: 2.7 million students in 5 years; 31% female

Bangladesh: 165,000 in 3 years; 40% female

Namibia: 80,806 in 3 years; 65% female
## Unit Cost per Student

<table>
<thead>
<tr>
<th>Country</th>
<th>Formal Secondary School</th>
<th>Open School</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>INR 15,288</td>
<td>INR 1,230</td>
</tr>
<tr>
<td>Namibia</td>
<td>ZAR 5,346</td>
<td>ZAR 1,262</td>
</tr>
</tbody>
</table>

In Belize, Social Return on Investment in open schooling showed that every US$ invested resulted in US$8 worth of benefits to students.
“I left school in year 5 when I got married at the age of 12. I am now 22 and have 3 children. I went back to school so that I could help my children with their schoolwork.”
Technology-enabled learning can break open the ivory towers of tertiary education.
The Demand

4 new universities to cater to 30,000 needed each week to accommodate children who will reach enrolment age by 2025

Everitt in Liyanagunawardena et al, 2013
31 COMMONWEALTH OPEN UNIVERSITIES
(2018)

AFRICA
BOTSWANA
Botswana Open University (BOU)
NIGERIA
National Open University of Nigeria
SOUTH AFRICA
University of South Africa (UNISA)
TANZANIA
Open University of Tanzania (OUT)
ZAMBIA
Zambian Open University (ZAOU)

ASIA
BANGLADESH
Bangladesh Open University (BOU)
INDIA
Dr. Babasaheb Ambedkar Open University (BAOU)
Dr. B.R. Ambedkar Open University (BRAOU)
Global Open University Nagaland (Private)
Indira Gandhi National Open University (IGNOU)
Karnataka State Open University (KSOU)
Krishna Kanta Handiqui State Open University (KKHSOU)
Madhya Pradesh Bhoj University (MPBOU)
Nalanda Open University (NOU)
Netaji Subhas Open University (NSOU)
Odisha State Open University (OSOU)
Pandit Sundarlal Sharma (Open) University (PSSOU)
Tamil Nadu Open University (TNOU)
Uttarakhand Open University (UOU)
Uttar Pradesh Rajarshi Tandon Open University (UPRTOU)
Vardhaman Mahaveer Open University (VMOU)
Venkateshwara Open University (Private)
Yashwantrao Chavan Maharashtra Open University (YCMOU)
MALAYSIA
Open University Malaysia (OUM)
Wawasan Open University (WOU)
PAKISTAN
Allama Iqbal Open University (AIOU)
SRI LANKA
Open University of Sri Lanka

CARIBBEAN & THE AMERICAS

CANADA
Athabasca University

EUROPE
CYPRUS
Open University of Cyprus (OUC)
UNITED KINGDOM
The Open University

PACIFIC
NEW ZEALAND
Open Polytechnic of New Zealand (OPNZ)
## Costs: ODL in Mega Universities

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>Enrolment</th>
<th>% of Campus Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>AIOU</td>
<td>456.126</td>
<td>22</td>
</tr>
<tr>
<td>China</td>
<td>CCRTVU</td>
<td>2,300,000</td>
<td>40</td>
</tr>
<tr>
<td>India</td>
<td>IGNOU</td>
<td>1,187,100</td>
<td>35</td>
</tr>
<tr>
<td>UK</td>
<td>OU</td>
<td>203,744</td>
<td>50</td>
</tr>
</tbody>
</table>

*Unit cost per student as a percentage of the average for other universities in the country, NKC, 2004.
The No Significant Difference Phenomenon

as reported in 355 research reports, summaries and papers

a comparative research annotated bibliography on technology for distance education

1999

compiled by
Thomas L. Russell
Office of Instructional Telecommunications
North Carolina State University
Benefits of CEMBA/MPA
Allama Iqbal Open University (AIOU), Pakistan

Graduates saw on increase of
38% in monthly income

An increase of 28.5% points in
the probability of being promoted

For every $1 invested, learners received
$3.40 in direct returns
Raymond Loh: CEMBA Graduate - “...offering moving and relocation services to clients in over 40 countries.”
Open Educational Resources (OER) are the answer to closed and costly textbooks
One Textbook per Child?

• 1 reading textbook for 12 students

• 1 math textbook for 14 students
The Need: Problem of Cost

In Malaysia, 76.4% students did not buy a textbook because it was expensive.

73% students in Bangladesh depended on photocopied materials, as the cost of textbooks is prohibitive.
Antigua and Barbuda

- Students saved between 75 to 88 ECD per course per semester by using open textbooks.
- Supplementing textbooks with OER improved student performance by 5.5%.
Impact of OER Policy

• 165 universities participate in the OER curation, development and sharing
The digital divide can be transformed into a digital dividend
Aptus: Allama Iqbal Public School and College in the Swat District, Pakistan
Aptus devices sent to assist the Ministry of Education, Tonga in restoring classroom teaching in Tongan schools and colleges, following Cyclone Gita.
Understanding the Blue Economy
Online learning - Food and Agriculture sector underserved. A consortium conceptualised by COL, supported by NPTEL
Reaching the Bottom Billion

- Content designed for delivery in low bandwidth
- Basic phone interface
- Social media integration
- Online peer-to-peer interactions supplemented with blended approaches
- Content is open i.e. OER

MOOCs on topics related to Human and Sustainable Development
21
112 countries
7,967 Certificates Provided
$14/certificate
3 MOOCs using just basic cell phones
41,972 registrants
Literacy is not always a precondition for Learning
Literacy in the Commonwealth

400 million illiterate adults
Every $1 invested resulted in $16 worth of income and assets.
1% increase in empowerment 2.3% increase in profit.
Arogya Mary - a school dropout, a grandmother, who never knew about internet before GIRLSInspire project

Content and Web Manager for a Farmer’s Organization

**Facebook content:** 600 different content uploaded

**Youtube:** 500 videos of farmers field experiences

**Whatsapp:** 150 organic agriculture based content

**Trained:** over 1000 farmers
The social capital of the mother is the most important determinant in bringing girls to school.
GiRLS Inspire
Learning for empowerment.

Australian Government
Department of Foreign Affairs and Trade

Government of Canada
Gouvernement du Canada
Community involvement prevented Fatima’s early marriage in Mozambique
When I was young, my parents used to beat me to go and labour with them. So, I could not get education, but now a new hope is developed in me.... And I will send my daughter to the nearest school.
Paradigm Shift Lies In…

• Harnessing the potential of ICTs for education and lifelong learning
• Moving beyond conventional pedagogy
• Fostering innovations
• Involving the community
What more needs to be done?
1. Inclusion

In South Africa 80% of disabled people aged 20-24 are not in tertiary education.

Canada 10.7%

Australia 5.5%

India .56%

South Africa 1%
# Using Technology

<table>
<thead>
<tr>
<th>Assistive Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice recognition of typing</td>
</tr>
<tr>
<td>Pointing devices (track ball, touch screen)</td>
</tr>
<tr>
<td>Magnification of screen</td>
</tr>
<tr>
<td>Planning and organisation software</td>
</tr>
<tr>
<td>Refreshable braille display</td>
</tr>
</tbody>
</table>
2. Lifelong Learning

... shifting to learner-centric approaches, the need for self-directed learning and the view that learning can take place in a variety of settings and contexts.
ICT for Lifelong Learning

Driven by technological change

- Mobile Computing
- Social Networks
- Massive open online courses (MOOCs)
- Blogs
- Wikis
- Badges (Mozilla)

What is Heutagogy? And how can we use it to help develop self-determined learners?

https://www.slideshare.net/lisamarieblaschke/what-is-heutagogy-and-and-how-can-we-use-it-to-help-develop-selfdetermined-learners

Source: Lisa Marie Blaschke, 2017
3. Quality in Education: Blockchain

• Integrity of records and identities of learners critical in Quality Assurance
• Blockchain entries cannot be modified
• Deployment in online learning is a rapidly emerging possibility
Quality: Learning Analytics

- Identify at risks learners
- Provide personal guidance and support
- Identify hard spots
- Enhance learning outcomes by providing fostering mastery learning
Towards SDG 4
Promote open distance and technology enabled learning
The Iron Triangle

The Revolution of Technology

ACCESS  QUALITY  COST

ACCESS  QUALITY  COST
II

Reaching the Unreached
Who are the Unreached?

- Economic status
- Gender
- Remote locations
- Language
- Disabilities
ICT by itself will not help us achieve SDG 4
Focus on 3Es

- Empathy
- Equity
- Ethics
Thank you
Innovations for Quality Education & Lifelong Learning