GLOBAL TRENDS IN OER
What is the Future?

Professor Asha Kanwar, President & CEO
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To help Commonwealth governments and institutions use technologies to improve and expand learning for sustainable development
ECONOMIC GROWTH

SOCIAL INCLUSION

ENVIRONMENTAL CONSERVATION

Learning for Sustainable Development
The Commonwealth

53 developed and developing nations around the world
The Plan

• Context
• Brief History of OER
• Five Key Challenges
• Research Trends
• Future Directions
Context
GER Tertiary Education - Global

Asia: GER Tertiary

Source: http://data.uis.unesco.org/?ReportId=184&IF_Language=eng#
Cost of Higher Education

Cost as % of income in 2015

- Japan: 61.3
- South Korea: 95.5
- China: 99.5
- Indonesia: 346.8
- India: 503.1

Source: https://www.eiuperspectives.economist.com/sites/default/files/EIU_Yidan%20prize%20forecast_Education%20to%202030.pdf
Rising Cost of Textbooks

Chart of the day: The astronomical rise in college textbook prices vs. consumer prices and recreational books

Costs Prohibit Access to TE

• In the USA, 65% students do not buy textbooks because of high costs (USD 1200 annually)

• In Malaysia, 76% do not buy textbooks because of high costs. (MYR 190 annually)
Access to Textbooks in Schools

• In Cameroon, there was only 1 reading textbook for 12 students and only 1 maths textbook for 14 students in grade 2.

• In Togo in grade 2, there were 3 students for every reading textbook, and 8 students for every maths textbook.

Source: UNESCO GEMR Policy Paper 23
Remote institutions in India

- KSS Women’s Engineering College, Andhra Pradesh
- Maya Devi Educational Foundation, Uttarakhand
- Bhilai Institute of Technology, Chattisgarh
Why OER?

• Reduce costs
• Enhance access
• Improve quality
Brief History of OER
What are OER?

“OER are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.”


Where it all began...

STAMP 2000+

The Open University

OpenLearn

MIT OpenCourseWare

Massachusetts Institute of Technology
UNESCO HQ Paris

2002 Forum on the Impact of Open CourseWare for Higher Education in Developing Countries
Cape Town Open Education Declaration 2007

• **Educators and learners**: to actively participate in the emerging open education movement.

• **Authors and publishers**: to release their resources openly.

• **Governments and institutions**: offer taxpayer-funded resources, as open educational resources.
Paris Declaration 2012

• Foster awareness and use of OER
• Encourage the development and adaptation of OER in a variety of languages and cultural contexts
• Encourage the open licensing of educational materials produced with public funds.
Qingdao Declaration 2015

... commit to developing sector-wide strategies and capacity building programmes to fully realize the potential of OERs to expand access to lifelong learning opportunities and achieve quality education.
OER for Inclusive and Equitable Quality Education
From Commitment to Action
Highlights: Asia

- NME-ICT follows CC BY-SA licence (India)
- Commitment to OpenCourseWare in eLearning policy (Malaysia)
- OER repositories in China, Hong Kong, India, Indonesia, Malaysia, Pakistan, Philippines, Vietnam.
Priorities: Asia

• Need for improved connectivity
• More attention to content for people with disabilities
• Increased awareness and capacity to use/develop OER
• Need for OER in local languages
• National policies to guide OER
Global Trends

Policies

• Increasing support, not accompanied by national policies
• Institutional policies have grown
• Regions with extensive OER activities, not always reliant on national policy
Global Trends
Repositories

• OER repositories from the global north used more
• Majority of the repositories are at tertiary level
• Repositories are increasingly available in diverse fields and levels
Many governments and stakeholders are not clear about OER.

Increased focus on open textbooks has led to neglect of OER for lifelong learning.

Governments are supporting MOOCs, which are not necessarily “open.”
OER: Then and Now

Focus was on Governments
Policies
Commitment

Additional focus on stakeholders
Mainstreaming OER
Concrete Actions
Five Key Challenges
Key Challenges

• Developing supportive **policy** environments
• Ensuring **inclusive and equitable access** to quality OER
• Building the **capacity** of users to find, re-use, create and share OER
• **Language & cultural issues**
• Developing **sustainability models**

Ljubljana OER Action Plan 2017
OER Policies in Asia

• No National OER policy: in process in Bangladesh, India and Malaysia
• Institutional policies: BOU, 7 in India, OUSL, WOU
• Project/ Initiative level: NMEICT, India
• Provincial policies: Sri Lanka
OER Initiatives in Asia

• OER Asia
• CORE, China
• NROER, India
• VUP Open Courseware
• Japan OCW
2. Inclusive and Equitable Access

- ebooks (including exceptions in copyright for people with disability)
- Open Access
- FOSS
How Accessible are OER?

Textbook: **Writing Spaces**

Accessibility review by: **Virtual Ability, Inc.**

Source: http://www.collegeopentextbooks.org/textbook-listings/accessibility-reviews
Every $1 invested resulted in $9 worth of income and assets.
3. Capacity

• **Teachers**: difficult to locate, adapt, and re-purpose OER material relevant to their work.

• **Learners**: OER should be more open and multi-modal.

• **Technical support**: lack of standard practices in the packaging and re-use of OER.

• **Management**: concerns regarding intellectual property; copyright issues and competition

OER Survey, Asia, 2011 (WOU, IDRC)
Capacity Building

- Short OER Course: Accessed by 19,000 people
4. Language & Culture: Translation

CORE

COL ID template
translated and adapted by
Open University of China

COL materials in
Ukrainian
OER Platform in Tamil
Localisation: Principles

• A community of practice bolsters localisation
• Must be done in appropriate formats
• Understand local contexts

Localization of Open Educational Resources (OER) in Nepal: Strategies of Himalayan Knowledge-Workers

Tiffany Zenith Ivins
March 2011

5. Sustainability Models

**Funding Models**
- Endowment
- Membership
- Collaboration
- Institutional/governmental

**Business Models**
- Cross Subsidy
- Ad-supported
- Freemium
- Gift economy
OERu concept

Collaborative Model

- Students awarded credible degree or credential
- Participating institutions grant credit for courses
- Assessment from participating institutions
- Student support via "Academic Volunteers International"
- Learners access courses based solely on OER

Source: http://slides.com/mackiwg/oeru-icde-2017#/

Institutional/Governmental models

In USA, the Z-degree programmes save about USD2,500 per student

BC Campus in Canada has saved over 9 million CAD in 40 participating institutions
What is still needed...

• More advocacy and capacity development
• Policies
• Targeted approach to developing OER in accessible media formats
• Culturally and linguistically relevant OER
• New business models with a win-win framework
Research Trends
Publications on OER

Based on OER Knowledge Cloud

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<tr>
<th>Year</th>
<th>Publications</th>
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<td>2000</td>
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<tr>
<td>2017</td>
<td>206</td>
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<tr>
<td>2018</td>
<td>63</td>
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1. Overview of OER Research

<table>
<thead>
<tr>
<th>Bibliographic Data</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Publications</td>
<td>544</td>
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<tr>
<td>Authors</td>
<td>843</td>
</tr>
<tr>
<td>Countries of the authors’ Institutions</td>
<td>61</td>
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</table>

Key Topics

- Technology
- Quality
- Open Education
- Sustainability
- Open licenses
- Barriers

OER Research: orientation

- Less focus on impact
- Descriptive studies
- Implementation reports
- Inadequate policy research

Frequency of OER Study types in IRRODL, 2012-14

2. Teachers’ perspective: India

- Teachers had positive attitudes towards OER, and their attitudes did not differ significantly across demographic variables.

- Attitude towards sharing was stronger than towards adapting materials developed by others.

Source: http://oasis.col.org/handle/11599/2659
Teachers’ perspective: China

I have no time to develop OER 3.78
I don’t know how to develop OER 3.76
I don’t know the value of developing OER 2.61
I have no incentive to develop OER 3.2

Source: Guo et al (2015). Chinese Faculty Members’ Open Educational Resources (OER) Usage Status and the Barriers to OER Development and Usage, iJET, 10(5). Retrieved from http://dx.doi.org/10.3991/ijet.v10i5.4819
Impact on Teachers: US

- 93.8% of K12 teachers agree OER helped them use a broader range of teaching and learning methods
- 89.7% agree that they make use of a wider range of multimedia
- 88.6% agree that they reflect more on the way that they teach

3. Learners’ perspective:

Decision to use OER

Which of the following factors influenced your decision to use OER? N=969

- The opportunity to study at reduced or no cost: 88.1%
- The chance to try university-level content: 41.1%
- The materials can be used flexibly: 68.9%
- The materials can be accessed any time: 79.6%
- The materials can be studied online: 79.3%
- A desire to have a learning experience/study a course: 72%
- A need to find information: 25%

Cost and ease of access are the most important factors influencing formal learners’ decision to use OER.

# Impact of OER use

In which of these ways has your use of OER made an impact on your formal studies? N=1167

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased participation in class discussions</td>
<td>32.6</td>
</tr>
<tr>
<td>Increased interest in the subjects taught</td>
<td>61.9</td>
</tr>
<tr>
<td>Increased satisfaction with the learning experience</td>
<td>60.7</td>
</tr>
<tr>
<td>Grades improving</td>
<td>38.9</td>
</tr>
<tr>
<td>Gaining confidence</td>
<td>51.6</td>
</tr>
<tr>
<td>Having increased independence and self-reliance</td>
<td>51</td>
</tr>
<tr>
<td>Increased engagement with lesson content</td>
<td>46.5</td>
</tr>
<tr>
<td>Increased experimentation with new ways of learning</td>
<td>53.2</td>
</tr>
<tr>
<td>Increased collaboration with peers</td>
<td>26.8</td>
</tr>
<tr>
<td>Increased enthusiasm for future study</td>
<td>60.4</td>
</tr>
<tr>
<td>Becoming interested in a wider range of subjects</td>
<td>54.7</td>
</tr>
<tr>
<td>Being more likely to complete my course of study</td>
<td>46.9</td>
</tr>
</tbody>
</table>

CUTTING the COST of a COLLEGE DEGREE by UP TO 30%

Tuition and textbook costs for Tidewater degrees

<table>
<thead>
<tr>
<th>Traditional Degree</th>
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<tbody>
<tr>
<td>TCC In-State Tuition</td>
<td>$9,600</td>
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<tr>
<td>Textbooks</td>
<td>$3,700</td>
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</table>

<table>
<thead>
<tr>
<th>Zero Textbook Cost Degree</th>
<th></th>
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<tbody>
<tr>
<td>TCC In-State Tuition</td>
<td>$9,600</td>
</tr>
<tr>
<td>Textbooks</td>
<td>$0</td>
</tr>
<tr>
<td>Total Cost of Degree</td>
<td>$4K to $14K</td>
</tr>
</tbody>
</table>

Source: Hewlett Foundation (2015)
Performance in Open Courses

• Students enrolled in face-to-face open courses 7% more likely to succeed than those with commercial textbooks
• Students in hybrid/online open courses were significantly less likely to drop out of a course
• Student success in open courses was nearly 6% higher

4. OER in the Global South

Use by Educators in developing countries

OER Adoption Model

Figure 1: OER adoption pyramid

OER Engagement

**EMPOWERMENT**
- OER creation

**PARTICIPATION**
- OER adaptation

**ACCESS**
- OER use

- Epistemic stance
- Personal motivation
- Collaboration and co-creation
- Participation in funded OER projects

- Support mechanisms
- Institutional policies
- Pedagogical practices
- Technical skills

- Availability of OER
- Technological infrastructure
- OER awareness

Overview of Research Gaps

• Extremely small research base; mostly from Europe and North America
• Focused around attitudes and barriers
• Limited focus on cost-effectiveness and pedagogical impact
Future Directions
GOAL 4

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

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal
OER for Lifelong Learning

- OER for personal interest
- For professional development
- For skilling and reskilling

Life Stages by [Nazrul Islam Ripon](https://commons.wikimedia.org/wiki/File:Life-stages.jpg)
OER for People with Disability

• Using Universal Design Principles for OER creation
• Researching new ways of sharing OER for people with disabilities
• Providing affordable, low-cost options for learning
Using Blockchain for OER

- Integrity of records and identities of learners critical in Quality Assurance of OER
- Making OER more reliable and authentic.
- Credit mobility
From OER to OEP

<table>
<thead>
<tr>
<th>Learning Architecture</th>
<th>Low No OER (re-) usage</th>
<th>Medium OER (re-)usage or creation</th>
<th>High OER (re-)usage and creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Social practices, Collaboration, Sharing (Reflection in action),</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• &quot;open&quot; objectives</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• &quot;open&quot; methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Dialog, Procedures, Rules (Know-how)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• &quot;closed&quot; objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• &quot;open&quot; methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Knowledge transmission (Know that)</td>
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<tr>
<td></td>
<td>• &quot;closed&quot; objectives</td>
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</tr>
<tr>
<td></td>
<td>• &quot;closed&quot; methods</td>
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</tbody>
</table>

Increasing OEP

Towards Effective Learning

• Learners become producers rather than consumers
• Multi-media resources for a rich learning experience
• Collaboration, sharing and interaction
• Personalized and contextual learning
Re-defining OER

The phenomenon of OER is an empowerment process, facilitated by technology in which various types of stakeholders are able to interact, collaborate, create and use materials and pedagogic practices, that are freely available, for enhancing access, reducing costs and improving the quality of education and learning at all levels.
Thank you

www.col.org