

# OER in Higher Education in Developing Countries



## OER - What Actions for Greatest Impact?

**Abdul W Khan**

# Contextualizing OER

The screenshot shows the UNESCO website's 'Communication and Information' section. The top navigation bar includes UNESCO, Education, Natural Sciences, Social and Human Sciences, Culture, Communication and Information, and Media Services. The 'Communication and Information' menu is expanded to show 'About us', 'Themes', 'Intergovernmental Programmes', 'Events', and 'Resources'. The main heading is 'Communication and Information'. Below this, there's a sub-heading 'Open Educational Resources' with a logo of an open book and hands. The text explains UNESCO's belief in universal access to high-quality education and the role of OERs. It mentions the 2012 OER Forum in MIT and the 2017 OER Congress. A sidebar on the left lists various topics like 'Access to knowledge', 'Archives', and 'Open educational resources'. A right sidebar contains 'Q&A ABOUT OER', 'RELATED INFORMATION', 'PAGES', and 'WEBSITES'.

UNESCO » Communication and Information » Themes » Access to knowledge » Open educational resources

## Open Educational Resources

UNESCO believes that universal access to high quality education is key to the building of peace, sustainable social and economic development, and intercultural dialogue. Open Educational Resources (OER) provide a strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing and capacity building.

Open Educational Resources are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution.

In 2001, the Massachusetts Institute of Technology (MIT), in an unprecedented move, announced the release of nearly all its courses on the internet for free access. As the number of institutions offering free or open courseware increased, UNESCO organized the 1st Global OER Forum in 2002 where the term Open Educational Resources (OER) was adopted.

With the support of the Hewlett Foundation, UNESCO created a global OER Community wiki in 2005 to share information and work collaboratively on issues surrounding the production and use of Open Educational Resources.

UNESCO is developing a new, innovative OER Platform which will offer selected UNESCO publications as OERs and allow communities of practice including teachers, learners, and education professionals to freely copy, adapt, and share their resources.

In partnership with key European institutions, UNESCO is a member of the (Open Educational Quality (OPAL) Initiative to develop a Framework of OER Practices that improve quality and innovation in education.

### 2nd World Open Educational Resources Congress

Monday 18 - Wednesday 20 September 2017  
Cankarjev dom, Ljubljana, Slovenia

**Q&A ABOUT OER**

- ▶ What are Open Educational Resources (OERs)?
- ▶ Why should I care about OERs?
- ▶ What are some examples of OER projects?
- ▶ How has UNESCO supported OERs?
- ▶ What is the 2012 World Open Educational Resources Congress and what are its aims?
- ▶ What is the Paris Declaration?
- ▶ How can I get involved?

**RELATED INFORMATION**

**PUBLICATIONS/DOCUMENTS**

- ▶ **NEW!** Study on International Collaboration on Open Education Resources (OER)
- ▶ Guidelines on Open Educational Resources (OER) in Higher Education
- ▶ More

**PAGES**

- ▶ Global OER Logo
- ▶ Events

**WEBSITES**

- ▶ UNESCO OER Community
- ▶ OER resources
- ▶ Open Training Platform
- ▶ Open Educational Quality Initiative (OPAL)

# Some examples of OER in South Asia

❖ India

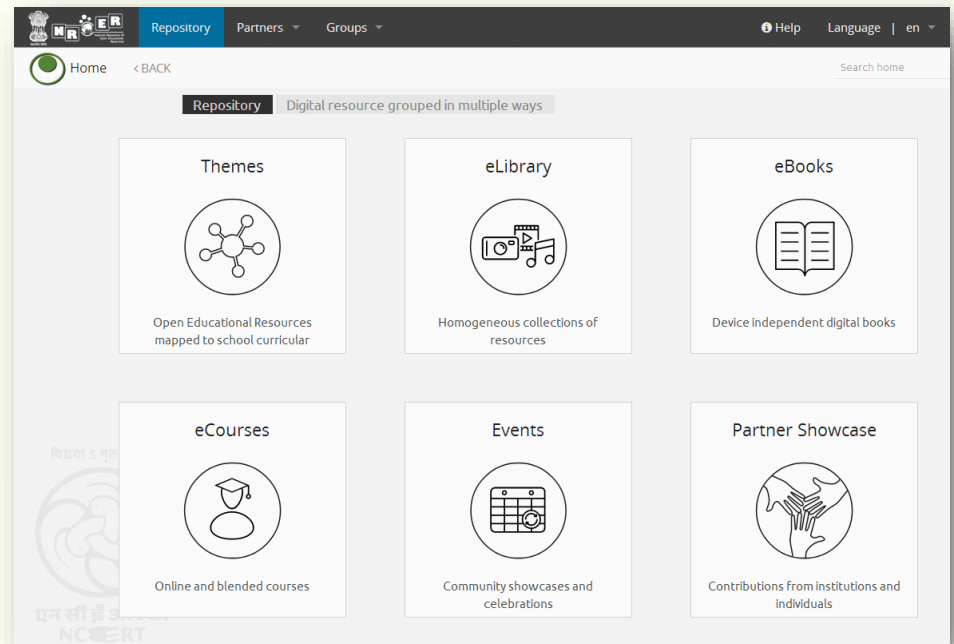
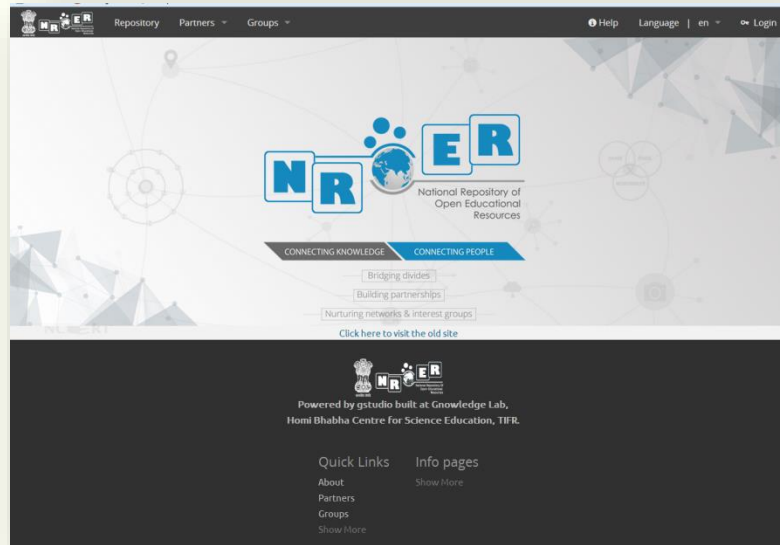
❖ Pakistan

❖ Afghanistan



<http://ontheworldmap.com/asia/map-of-south-asia.html>

# India (NROER)



**National Repository of Open Educational Resources**

**<http://nroer.gov.in/home/>**

# Pakistan

## (e.Learn. Punjab & Virtual University of Pakistan)

LEARN.PUNJAB

HOME CONTRIBUTE EVENTS MEDIA IMPLEMENTATION STATISTICS ABOUT CONTACT


Chemistry Books Biology Books Physics Books Math Books Science Books Grade 1 to 5 Miscellaneous

A GOOD TEACHER WITH GOOD DIGITAL CONTENT IS LIKE A CANDLE - IT CONSUMES ITSELF TO LIGHT THE WAY FOR OTHERS.

eLearn.Punjab is the official repository of free online digitized textbooks augmented with

<http://learn.punjab.gov.pk/index.html>

# Afghanistan (Darakht-e-Danesh Library)

Darakht-e Danesh  
درخت دانشRegister | Log InEnglish

[Home](#) [News](#) [About](#) [Education in Afghanistan](#) [Support the Library](#) [Contact Us](#)

## About the Darakht-e Danesh Library

### What is the Darakht-e Danesh Library?

'Darakht-e danesh' means "knowledge tree" in Dari, one of the official languages of Afghanistan. The Darakht-e Danesh Online Library for Educators is a repository of [open educational resources](#) for teachers, teacher trainers, school administrators, literacy workers and others involved in furthering education in Afghanistan. These open source resources include lesson plans, pedagogical tools, exercises, experiments, reading texts, work books, curricula and other resources for use in Afghan classrooms.

These resources can be freely accessed by registered users, and we encourage users to add to the repository by uploading their own resources and expand this collection for the benefit of Afghanistan's teachers. The OER movement is fundamentally about sharing: please use the resources in the Library, but also considering contributing some of your own resources. It's easy to add documents to the Library, just [contact us](#) if you would like to add content. We aim to bring together useful resources for educators into a single location, for easy access and broader use.

### How is the Darakht-e Danesh Library Used?

Anyone with internet access can download and use the resources in the collection. Teacher educators can use the site to download resources and then distribute these in print in teacher training colleges, or to use in adapting their own local language resources. Teachers can browse the collection to download or print out resources for their classrooms or their own professional development. These resources can be freely copied and distributed.

### Why is an online library needed?

The education system in Afghanistan is experiencing a rebirth. With millions of girls and boys back in school, new teacher colleges opening, and a reformed curriculum in use, there have been many changes since 2001. A National Education Strategy for Afghanistan guides these changes with more to come. Yet the challenges which remain are significant. Thirty years of war and an ongoing insurgency which has singled out teachers and girls' education for attack, makes this a difficult environment in which to teach. Afghan teachers contend with a daunting lack of resources. Most schools do not have libraries or science labs, many students go without textbooks, and teachers have little material provided to them to help cover the curriculum. The majority of in-service Afghan teachers have no formal teacher training, and many have no post-secondary education. Some teachers have not graduated from high school. In particular, it can be difficult to find quality resources for educators in Dari and Pashto. Even when such resources are available, books are expensive and teachers are not well paid. The Darakht-e Danesh Library aims to increase access to quality resources for Afghan educators, encourage teachers to consult a wide variety of resources in their practice, to use these tools to adapt their own, and to share their own resources with other teachers through this open-source collection. We believe that digitalization can make more out of less and nurtures teachers' independent learning.

The great aim of education is not knowledge but action. -- Herbert Spencer



<https://www.darakhtdanesh.org/en/about/darakht-e-danesh-library>





# World Internet Usage

## WORLD INTERNET USAGE AND POPULATION STATISTICS JUNE 30, 2017 - Update

World Regions	Population ( 2017 Est.)	Population % of World	Internet Users 30 June 2017	Penetration Rate (% Pop.)	Growth 2000-2017	Internet Users %
<a href="#">Africa</a>	1,246,504,865	16.6 %	388,376,491	31.2 %	8,503.1%	10.0 %
<a href="#">Asia</a>	4,148,177,672	55.2 %	1,938,075,631	46.7 %	1,595.5%	49.7 %
<a href="#">Europe</a>	822,710,362	10.9 %	659,634,487	80.2 %	527.6%	17.0 %
<a href="#">Latin America / Caribbean</a>	647,604,645	8.6 %	404,269,163	62.4 %	2,137.4%	10.4 %
<a href="#">Middle East</a>	250,327,574	3.3 %	146,972,123	58.7 %	4,374.3%	3.8 %
<a href="#">North America</a>	363,224,006	4.8 %	320,059,368	88.1 %	196.1%	8.2 %
<a href="#">Oceania / Australia</a>	40,479,846	0.5 %	28,180,356	69.6 %	269.8%	0.7 %
<b>WORLD TOTAL</b>	<b>7,519,028,970</b>	<b>100.0 %</b>	<b>3,885,567,619</b>	<b>51.7 %</b>	<b>976.4%</b>	<b>100.0 %</b>

NOTES: (1) Internet Usage and World Population Statistics updated as of June 30, 2017. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the [United Nations Population Division](#). (4) Internet usage information comes from data published by [Nielsen Online](#), by ITU, the [International Telecommunications Union](#), by [GfK](#), by local ICT Regulators and other reliable sources. (5) For definitions, navigation help and disclaimers, please refer to the [Website Surfing Guide](#). (6) Information from this site may be cited, giving the due credit and placing a link back to [www.internetworldstats.com](http://www.internetworldstats.com). Copyright © 2017, Miniwatts Marketing Group. All rights reserved worldwide.

<http://www.internetworldstats.com/stats.htm>

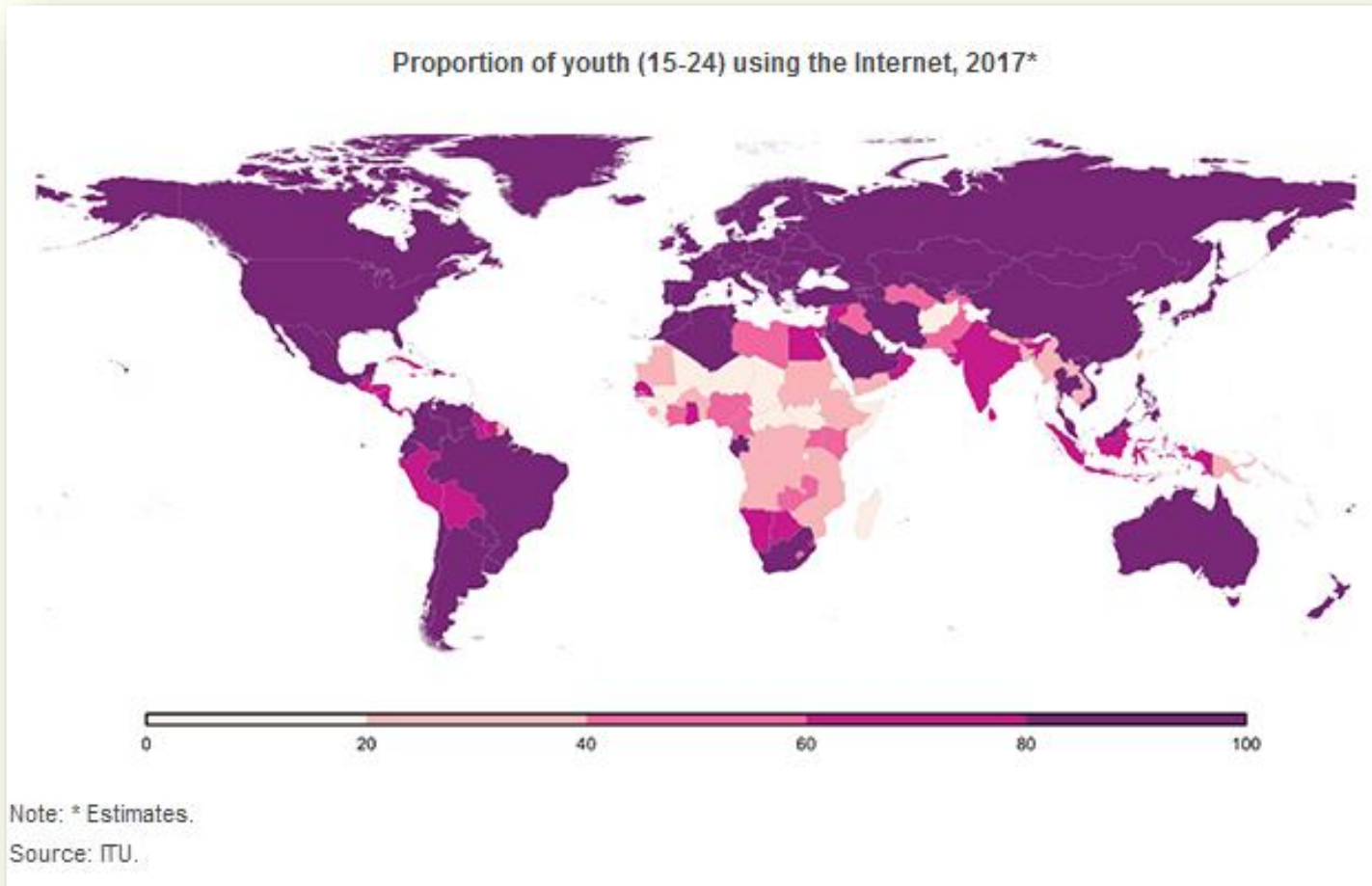


# Percentage of Internet Users in Asia

ASIA INTERNET USE, POPULATION DATA AND FACEBOOK STATISTICS - JUNE 2017						
ASIA	Population (2017 Est.)	Internet Users, (Year 2000)	Internet Users 30-June-2017	Penetration (% Population)	Users % Asia	Facebook 30-Jun-2017
<a href="#">Afganistan</a>	34,169,169	1,000	4,005,414	11.7 %	0.2 %	2,600,000
<a href="#">Bangladesh</a>	164,827,718	100,000	73,347,000	44.5 %	3.8 %	21,000,000
<a href="#">China *</a>	1,388,232,693	22,500,000	738,539,792	53.2 %	38.1 %	1,800,000
<a href="#">India</a>	1,342,512,706	5,000,000	462,124,989	34.4 %	23.8 %	241,000,000
<a href="#">Indonesia</a>	263,510,146	2,000,000	132,700,000	50.4 %	6.8 %	126,000,000
<a href="#">Malaysia</a>	31,164,177	3,700,000	24,554,255	78.8 %	1.3 %	19,000,000
<a href="#">Maldives</a>	375,867	6,000	270,000	71.8 %	0.0 %	270,000
<a href="#">Myanmar</a>	54,836,483	1,000	13,747,506	25.1 %	0.7 %	11,000,000
<a href="#">Nepal</a>	29,187,037	50,000	6,400,000	21.9 %	0.3 %	6,400,000
<a href="#">Pakistan</a>	196,744,376	133,900	44,608,065	22.7 %	2.3 %	27,000,000
<a href="#">Philippines</a>	103,796,832	2,000,000	57,607,242	55.5 %	3.0 %	54,000,000
<a href="#">Singapore</a>	5,784,538	1,200,000	4,699,204	81.2 %	0.2 %	4,100,000
<a href="#">Sri Lanka</a>	20,905,335	121,500	6,700,160	32.1 %	0.3 %	4,200,000
<a href="#">Thailand</a>	68,297,547	2,300,000	57,000,000	83.5 %	2.9 %	57,000,000
<a href="#">Vietnam</a>	95,414,640	200,000	64,000,000	67.1 %	3.3 %	64,000,000
<b>TOTAL ASIA</b>	<b>4,148,177,672</b>	<b>114,304,000</b>	<b>1,938,075,631</b>	<b>46.7 %</b>	<b>100.0 %</b>	<b>736,003,000</b>

NOTES: (1) The Asian Internet Statistics were updated in June 30, 2017. (2) The Facebook subscriber data was also updated for June 30, 2017. (3) CLICK on each country name to see detailed data for individual countries and regions. (4) The demographic (population) numbers are based mainly on data contained in [United Nations Population Division](#) and local official sources. (5) The usage numbers come from various sources, mainly from data published by [Facebook](#), [ITU](#), and other trustworthy sources. (6) For navigation help, definitions and methodology, please see the [site surfing guide](#). (7) Data may be cited, giving due credit and establishing an active link back to [Internet World Stats](#). (\*) China figures do not include SAR Hong Kong, SAR Macao nor Taiwan, which are reported separately for statistical purposes. Copyright © 2017, [Miniwatts Marketing Group](#). All rights reserved worldwide.

# How Youth are using Internet



<http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>

# Barriers to Produce and Use of OER in 9 Asian Countries



**Barriers to Produce and Use**

**Survey findings from 9 Asian countries :**

- Lack of awareness
- Lack of skills
- Lack of time
- Lack of hardware and software
- Lack of access to computers
- Lack of ability to locate specific, relevant , and quality OER for their specific teachings
- No reward system for staff members devoting time and energy
- Lack of interest in pedagogical innovation amongst staff members
- No support from management level

(Dhanarajan & Porters, 2013)

<https://www.slideshare.net/citehku/cite-symposium-open-education-open-educational-resources-and-moocsopen-ed-oer-and-mooc>

# Challenges: Uniform across region

OE Global Conference 2017

## Extent of OER Awareness Open slide

- ✓ **Understanding Paradigm Shifts: Though many understand importance of OER yet.....**
  - Not easily accepted in traditional colleges
  - Educators and academicians do not believe in sharing knowledge
  - Resistance to Idea of 'Open'
  - Confusion exists on what exactly constitutes OER
  - Lack of awareness / restricted knowledge
  - Lack of ability to distinguish between open access, accessible content and (true) OERs
- ✓ **Despite being authors - lack of awareness among developers exists on OER concept, copyright policies & various licenses under which their materials is released.**

<https://www.slideshare.net/oeconsortium/a-study-on-awareness-of-oer-among-content-creators>

## (2016) Open Educational Resources: Vignettes of Selected Asian Experience



Hong Kong



India



Malaysia



Pakistan



Thailand

- Interest in reducing the cost of curriculum development and improving the quality of teaching and learning were relatively dominant.
- Awareness of OER as well as its usefulness is still not as widespread.
- Actual benefits of adopting OER realised until now, is somewhat modest.
- OER are created for all Subjects like hard sciences, engineering, humanities and liberal arts or adopted under various forms of licence.

Open Educational Resources: Vignettes of Selected Asian Experience (2016: WOU Press) by G. Dhanarajan (Edi.)



## (2016) Open Educational Resources: Vignettes of Selected Asian Experience



Hong Kong



India



Malaysia



Pakistan



Thailand

- Academic staff using OER in their course development indicates a positive shift in attitudes. There was also a sense of being “liberated” from the restrictions that textbooks impose.
- The quality of the curriculum and the teaching and learning experience was not compromised because of the use of OER.
- A marginal improvement noted in the performance of students in examinations and improvement in retention rates of those studying especially in the open universities.

## (2016) Open Educational Resources: Vignettes of Selected Asian Experience



Hong Kong



India



Malaysia



Pakistan



Thailand

- There is a recognised need for higher levels of skills and competencies in those who work with OER.
- There is some, though modest, evidence of active collaboration amongst institutions or individuals.
- There was no evidence to support enhancement of access to higher education directly.

# Measures for Greatest Impact

- Provide free online and low-cost in print
- Promote Open pedagogy
- Integration of OER in curriculum at all levels of education
- Completion of Primary Education
- Enhance the Digital literacy of teachers / incentives
- Adoption of OER models, practices, assessments
- Revisions of OER
- Mobile Devices to increase access to OER



By Giulia Forsythe@bccampus #OERforum @opencontent  
Why Open Education? [visual notes] CC BY-NC-SA 2.0.  
Available at <http://blogs.leeward.hawaii.edu/prls/oer/>

“I discovered over six years ago that I could **make my courses more accessible to students if I used OER materials** and removed the onus of purchasing an expensive textbook. ... As an OER early adopter, I got the chance to review *College Physics* while it was still in production. It was the best physics textbook I’d seen, and better than some \$300 books, in my opinion. Since adopting *College Physics*, my class **enrollments have increased** and my students’ scores on the national physics benchmark exam have **improved** by 30 percent.”

- Erik Christensen, Professor of Physics at South Florida State College and OpenStax College’s first user

<http://www.oer.arizona.edu/content/impact-oer>

# Thank You!