Indonesia:
OER Readiness and Initiatives

Nizam
Secretary,
Board of Higher Education
Director General of Higher Education

R Eko Indradjit
Chairman of APTIKOM OCW

Z A Hasibuan
Vice Chairman,
National ICT Council

Open Educational Resources - Policy Forum for Asia and the Pacific, Bangkok, 23-24 April 2012
presentation

- Background
- Development of ICT
- Government policy on ICT development
- Conclusion
more than 300 ethnic groups live in Indonesia speaking not less than 500 languages and dialects.
The formal and modern education system of Indonesia was established in 1908, about 37 years prior to the national independence day, 17 August 1945.
Higher Education Roles

1. Development of Knowledge Based Society
2. Human Resource Development
3. Application of Knowledge & Technology
4. Interaction w Industry & Comm
5. Teaching & Learning
6. Publications
7. Production & Dissemination of Knowledge & Technology
Presently, there are 3,016 higher education institution + 680 under MoRA in Indonesia, serving 5.4 million students.
### Higher Education Students

<table>
<thead>
<tr>
<th>Component</th>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2010 *)</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>2005</td>
<td>805.479</td>
<td>824.693</td>
<td>978.739</td>
<td>965.970</td>
<td>1.011.721</td>
<td>1.030.403</td>
<td>1.030.403</td>
<td>1.054.438</td>
</tr>
<tr>
<td>In-service</td>
<td>2005</td>
<td>48.493</td>
<td>51.318</td>
<td>47.253</td>
<td>47.253</td>
<td>66.535</td>
<td>92.971</td>
<td>92.971</td>
<td>101.245</td>
</tr>
<tr>
<td>Religious</td>
<td>2005</td>
<td>508.545</td>
<td>518.901</td>
<td>506.247</td>
<td>556.763</td>
<td>503.439</td>
<td>571.336</td>
<td>571.336</td>
<td>603.619</td>
</tr>
<tr>
<td>Open Univ</td>
<td>2005</td>
<td>262.081</td>
<td>322.854</td>
<td>450.849</td>
<td>521.281</td>
<td>624.401</td>
<td>645.099</td>
<td>645.099</td>
<td>666.763</td>
</tr>
<tr>
<td><strong>GER (%)</strong></td>
<td>2005</td>
<td>18.26%</td>
<td>20.23%</td>
<td>20.66%</td>
<td>21.26%</td>
<td>22.00%</td>
<td>24.67%</td>
<td>26.34%</td>
<td>27.16%</td>
</tr>
</tbody>
</table>

Note: *) Sensus Penduduk, 2010
Higher Education – Regional Disparity
HE Socio-Economic Disparity

Source: WB, 2010

National average
The country also has serious problem in term of the number of professors who have competencies in various fields of knowledge.

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State</td>
<td>Private</td>
<td>State</td>
</tr>
<tr>
<td>Qualification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>17.280</td>
<td>58.419</td>
<td>16.102</td>
</tr>
<tr>
<td>Master</td>
<td>35.900</td>
<td>30.984</td>
<td>37.365</td>
</tr>
<tr>
<td>Doctor</td>
<td>8.133</td>
<td>2.646</td>
<td>9.396</td>
</tr>
<tr>
<td>Total</td>
<td>61.313</td>
<td>92.049</td>
<td>62.863</td>
</tr>
</tbody>
</table>
Only a very few of HE institutions that meet the national standards currently, although the government would like to achieve a very progressive missions.
## Indonesia ICT Blueprint: Main Components

<table>
<thead>
<tr>
<th>ICT Infrastructure</th>
<th>E-Education</th>
<th>E-Government</th>
<th>ICT Industry Development and Supporting Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palapa Ring Project</td>
<td>Legalization of Educational Software</td>
<td>Legalization of Software in Government Institutions</td>
<td>Technopark Development</td>
</tr>
<tr>
<td>Transition into Digital Terrestrial TV</td>
<td>ICT Human Resources Competency Standard</td>
<td>e-Services &amp; e-Procurement</td>
<td>ICT Venture Capital</td>
</tr>
<tr>
<td>3G Implementation</td>
<td>e-Education in Formal Education</td>
<td>National Single Window</td>
<td>Information and Electronic Transaction Law</td>
</tr>
<tr>
<td>BWA Deployment</td>
<td>e-Education in Non-Formal Education</td>
<td>National Identification Number (NIN)</td>
<td>ICT Convergence Law</td>
</tr>
<tr>
<td>Affordable PCs</td>
<td>Internet Use for Education Campaign</td>
<td>e-Budget</td>
<td></td>
</tr>
</tbody>
</table>
• Internet users: 55 million
• Wireless subscribers: 250 million
• Facebook users: 43 million (2nd after USA) (March 2012)
Proyek Palapa Ring
33 propinsi, 440 kota/kab, 1+7 Ring

Total SubMarine Cable
35,280 km
Total inLand Cable
21,807 km
There are several problems faced simultaneously by the government, especially with regards to the access to a quality and affordable education.

<table>
<thead>
<tr>
<th>National Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem of Disparity</td>
</tr>
<tr>
<td>Problem of Diversity</td>
</tr>
<tr>
<td>Problem of Resource Limitation</td>
</tr>
<tr>
<td>Problem of Access to Education</td>
</tr>
<tr>
<td>Problem of Quality and Quantity</td>
</tr>
<tr>
<td>Problem of Infrastructure</td>
</tr>
<tr>
<td>Problem of Affordability</td>
</tr>
</tbody>
</table>
At the same time, a shifting paradigm in delivering learning activities and in managing education institutions exist within the education industry at large.
The government and education community have agreed to transform the national education system through enforcing collaboration among HEI.

## Solution Proposed

- **Increase the access to quality education**
- **Share and optimise education resources**
- **Promote and enforce collaboration**
- **Utilise technology as enabler and transformer**
- **Institutionalise open education as national initiative**
Evolution of Education System

Education 1.0
Traditional Education System

Education 2.0
Modern Education System

Education 3.0
21st Century Education System

Holistic Transformation
Curriculum, Pedagogy, Assessment
Infrastructure and Technology
Leadership, HRD, and Culture
Governance, Innovation and Partnership

Competitiveness
Collaboration and Creativity

Nation-State Building

Adopted from Cisco, 2010
Inherent – Spirit of Resource Sharing

Indonesian Higher Education Network 2011
A good number of initiatives is being introduced by education communities based on the spirit of sharing and collaborating among scholars and HEIs.
The example of the initiatives by Ministry of Education and HEI communities is producing electronic books for K12 (almost 1,000 official references)
The heterogeneous environment of Indonesia forces the adoption of multi channel access architecture in implementing open education initiatives.
1. Mendefinisikan kebutuhan bersama dan menyerahkan solusi secara kolektif

2. Membuat panduan detail mengenai usulan solusi kerjasama secara nasional untuk dilaporkan dan diminta persetujuan

3. Mendukung dan mengawasi pelaksanaan inisiatif atau gagasan kerjasama terkait

4. Menunjuk dan memonitor pembangunan, implementasi, dan pengembangan manajemen operasional program yang dicanangkan

5. Menyediakan infrastruktur dan jasa yang dibutuhkan oleh seluruh komunitas

National Education Exchange for Undergraduate Study (NEXUS)
In 2011, APTIKOM and DGHE - Ministry of Education were conducting research on 350 HEIs to map and to find issues on implementing open education concepts.
Promoting open education initiative in a campus environment should be done by using holistic and systemic approach to accelerate adoption.
In 2011, APTIKOM and Ministry of Education are conducting research on 350 HEIs to map and to find issues on implementing open education concepts.

### Maturity Model Approach Example

<table>
<thead>
<tr>
<th>Maturity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Do not care</td>
</tr>
<tr>
<td>1</td>
<td>Little support</td>
</tr>
<tr>
<td>2</td>
<td>Partial participation</td>
</tr>
<tr>
<td>3</td>
<td>Significant adoption</td>
</tr>
<tr>
<td>4</td>
<td>Strong implementation</td>
</tr>
<tr>
<td>5</td>
<td>Embedded culture</td>
</tr>
</tbody>
</table>
In 2011, APTIKOM and Ministry of Education are conducting research on 350 HEIs to map and to find issues on implementing open education concepts.

<table>
<thead>
<tr>
<th>Maturity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Nobody involved</td>
</tr>
<tr>
<td>1</td>
<td>A few people involved</td>
</tr>
<tr>
<td>2</td>
<td>A few groups involved</td>
</tr>
<tr>
<td>3</td>
<td>Several groups involved</td>
</tr>
<tr>
<td>4</td>
<td>Most people involved</td>
</tr>
<tr>
<td>5</td>
<td>Everybody involved</td>
</tr>
</tbody>
</table>
From the infrastructure point of view, most of the higher education institutions have equipped with adequate technology and tools for learning purposes.
Unlike infrastructure, from the superstructure point of view, there are still many things that need to be improved to boost the IT usage performance.
Basically, from the people literacy point of view, most of the campuses are ready – although there is a lack of training and incentive programs in place.
Only a few professors who have promoted and implemented the concept of open education and sharing resources in Indonesia.
Only a few professors who are willing to share their materials and other teaching resources – usually by uploading contents to the internet.
Most of the higher education institutions have utilised ICT as delivery tools and digitalized their knowledge assets, although only few using them in e-learning.
Firstly, there are four external factors that force campus to promote and to adopt the concept of open education internally:

1. **Government and Regulation**
   - Open Education
2. **Standards and Quality**
   - Open Education
3. **Trend on Education**
   - Open Education
4. **Values and Expectation**
   - Open Education
The Government Force

<table>
<thead>
<tr>
<th>Rules and Regulation</th>
<th>E-Learning and Distance Education Decree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital Books and E-Journal Decree</td>
</tr>
<tr>
<td></td>
<td>The Use of ICT for Education Decree</td>
</tr>
<tr>
<td></td>
<td>IGOS – UGOS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rewards and Incentives</th>
<th>Continuous Grant Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collaboration Project Endorsement</td>
</tr>
<tr>
<td></td>
<td>Conducive Environment for Innovation</td>
</tr>
</tbody>
</table>
National standard and accreditation board should redesign its assessment instruments to promote the adoption of open education principles.

<table>
<thead>
<tr>
<th>Changing Paradigm</th>
<th>Accepting “A” for Campus that Shares Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Giving Higher Score for Quality E-Learning</td>
</tr>
<tr>
<td></td>
<td>Using Search Engine for Papers Recognition</td>
</tr>
<tr>
<td>Assessor Involvement</td>
<td>Developing Basic Principles Together</td>
</tr>
<tr>
<td></td>
<td>Speaking in National Seminars and Conferences</td>
</tr>
<tr>
<td></td>
<td>Showing Real-World Examples (Testimonies)</td>
</tr>
</tbody>
</table>
The new paradigm on learning should be well understood by all key stakeholders in national education system

The Education Trend Force

<table>
<thead>
<tr>
<th>21st Century Learning Model</th>
<th>Using Contents from Everywhere</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Utilising ICT in Delivering Learning Process</td>
</tr>
<tr>
<td></td>
<td>Recognising the Internet-Based Knowledge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Today’s Students DNA</th>
<th>Education and Learning Should be “Open”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business Models on IPR are Changing</td>
</tr>
<tr>
<td></td>
<td>The Landscape of Open Education is Getting Stronger</td>
</tr>
</tbody>
</table>

The new paradigm on learning should be well understood by all key stakeholders in national education system
### The Values Expectation Force

#### Direct Benefits
- Improving Quality of Education
- Increasing Students Intakes
- Optimising the Use of Resources

#### Indirect Benefits
- Making the Brand Stronger
- Participating on Global Movement
- Empowering Governance Model

By the end of the day, open education initiative should bring direct and indirect values and benefits to all education communities who adopt the concept.
By integrating the internal ecosystem and external forces, an open education ecosystem within campus can be generated to expedite the adoption of OER.
By integrating the internal ecosystem and external forces, an open education ecosystem within campus can be generated to expedite the adoption of OER.

### Call for Partnerships

<table>
<thead>
<tr>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Courseware Development</td>
</tr>
<tr>
<td>Teaching and Research Collaboration</td>
</tr>
<tr>
<td>Credit Transfer Possibilities</td>
</tr>
<tr>
<td>Credit Earning Scheme</td>
</tr>
<tr>
<td>Professorships Capacity Building</td>
</tr>
<tr>
<td>Sharing Learning Resources</td>
</tr>
<tr>
<td>Scholars Exchange</td>
</tr>
</tbody>
</table>
Thank you
Terima kasih
Kop Khun
Cam-on
Xie-xie
Danke
Merci
Gracias

nizam
Building Green Society

This event is a collaborative effort of the CONNECT Asia initiative which was established in
CONNET Asia.

The way forward
Lessons from an event

Nizam
Inherent/GDLN Indonesia
What is it?

A Global virtual conference

Resource persons:

- Irina Bokova, spoke from Jakarta
- Jeffrey Sachs, spoke from New York
- Herbie Hancock, spoke from LA
- Martin Lees, spoke from Montpelier
- Hans van Ginkel, spoke from Utrecht
- Jun Murai, spoke from Tokyo
- Emil Salim, spoke from Jakarta
- Faridah Noor, spoke from KL
<table>
<thead>
<tr>
<th>Opening:</th>
<th>Keynote Speaker:</th>
<th>Moderator:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Irina Bokova</td>
<td>Prof. Jeffrey Sachs</td>
<td>Ms. Desi Anwar</td>
</tr>
<tr>
<td>Jakarta UNESCO Director General</td>
<td>New York Towards a Green Economy</td>
<td>Jakarta</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prof. R. Martin Lees &amp; Prof. Jun Murai</th>
<th>Mr. Herbie Hancock &amp; Dr. Faridah Noor Mohd Noor</th>
<th>Prof. Hans van Ginkel &amp; Prof. Emil Salim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montpellier &amp; Tokyo</td>
<td>Los Angeles &amp; Kuala Lumpur</td>
<td>Utrecht &amp; Jakarta</td>
</tr>
</tbody>
</table>

| Science: The Role of Science, Technology and Innovation in the Transition to a Green Economy | Culture: A Driver for Effective Sustainable Development | Education: Educating for a Sustainable Future |
Network of networks

1. INHERENT, Indonesia
2. MYREN, Malaysia
3. Preginet, Philipina
4. UNINET, Thailand
5. SOI Asia, Japan
6. LEARN, Sri Lanka
7. GDLN HoChiMinh City, Vietnam
8. GDLN Islamabad, Pakistan
9. GEANT (Utrecht dan Montpelier)
10. New York (Jeffrey Sachs)
11. LA (Herbie Hancock)
Network scheme
Scale of the connection

- Number of sites connected for video teleconference: 
  54 + 27 in Indonesia, + 9 other countries (90 sites)
- Number of MCUs: 8 MCUs (in 2 countries) each with capacity between 16 to 80 connections
- Number of direct end-points: 8 polycom cameras and 5 streaming servers.
- Number of camera in the main studio: 2 HD polycoms + 3 SONY pro
- High definition & standard definition
- Number of on-line video streaming connected: more than 2500 unique IPs simultaneously
- Enters into Guinness book of World Records
- Time zones: 17
Video & Audio Streaming

- **DGHE Video Streaming**
  Hosted by **DGHE** Indonesia, high quality Video -- mainly for Indonesian Audiences

- **SOI Asia Streaming**
  Hosted by SOI Asia, high quality Video -- for International Audience

- **Ustream HD Video**
  Hosted by Ustream, Keio Univ) -- high quality

- **Ustream SD**
  Hosted by Ustream, SOI Asia) -- for Mobile and lower bandwidth

- **Ustream Audio Only**
  Hosted by Ustream, CONNECT Asia
Communication

- Direct video tele-conference
- Skype and YM! Chatting
- Facebook
- Twitter
- Plus: cell phone communication 😊
MCU Arrangement
Lessons learned

- A visibility exercise
- Collaboration of networks is here
- Massive connection
- Mixed platforms
- Broadband and multi connection
- Internet based plus private network
- Mobile technology
- Ubiquitous learning is within reach
Next event

“unlocking the hidden wonder of The World Heritage

WHAT IS AGORASIA? AGORAsia is an online environment where university students, lecturers and other audiences gather to listen, discuss, create and share knowledge, from Asia to the world.

In this series of special workshops, specialists will promote discussions on theories from the heritages perspective, utilizing new learning approaches and making the best use of real time multilateral communication. As final assignment, students will create a video, to be submitted to the Video Contest*. 

VIDEO CONTEST

This video contest will stimulate junior high school to university students’ creativity and reflection about world heritage utilizing new media tools. Participants will create short movies on the theme “My World Heritage...” “For me, my world heritage is...”

The video can be of any genre: live action, animation, slide show, stop motion, etc. The video’s length is up to 5 minutes or less and submission will be done by Youtube.

Prizes and certificates will be given to the author of best pieces.

SPECIAL WORKSHOP 1
Date : Monday, December 12, 2011
Time : 11:00 - 12:30 (Jakarta Time, GMT+7)
Featured Heritage : Borobudur Temple (Indonesia)
Featured Topic : Digital Preservation of World Heritage
Featured Speaker : Prof. Hary Gunarto (lecturer in Ritsumeikan APU, Japan)

SPECIAL WORKSHOP 2
Date : January 2012
Featured Heritage : Hirazumi (Japan)
Featured Topic : Wooden Architecture/ Engineering*
Potential Guest : Japanese traditional carpentry professionals

SPECIAL WORKSHOP 3
Date : February 2012
Featured Heritage : Melaka and George Town (Malaysia), Ayutthaya (Thailand)
Featured Topic : Environment and Sustainability Management in Urban Areas*
Potential Guest : urban planners, environment engineers

SPECIAL WORKSHOP 4*
Date : March 2012
Featured Topic : Screening of video contest winners
Potential Guest : video makers, UNESCO

*tentative

For more information contact Masami Nakata / Marlin Tambowon
phone: +62 21 7399818 or email: ml.tambowon@unesco.org
http://connectivity.connect-asia.org/
Thank you
Terima kasih
Kop Khun
Cam-on
Xie-xie
Danke
Merci
Gracias