10 EMERGING DATA TRENDS

Strengthening Education Management Information Systems to monitor the Sustainable Development Goal 4
24-26 October 2018, Dushanbe, Republic of Tajikistan
TECHNOLOGY
Innovations. Change lives.

China: 1.4 billion
India: 1.35 billion
Facebook: 2 billion
Illiterates: 750 million
WHAT ARE the EMERGING DATA TRENDS TO SHAPE FUTURE EDUCATION
LEARNERS’ CENTERED
Can technology enhance learners to better interact with all
NO ONE LEFT BEHIND

DISAGGREGATION
Finding a poor ethnic children living at very remote area whom is illiterate because of her disability.
To target **the unreached** in education, who include:

- Learners from remote and rural communities, including in isolated areas
- Learners from linguistic and ethnic minorities, indigenous peoples, minority religious groups, etc.
- Girls and women, especially those who are pregnant or from rural and ethnic minority families
- Underperforming boys, boys at risk of dropping out, male dropouts
- Children from migrant families, refugees, stateless children
- Learners with disabilities and special needs
- Children in difficult circumstances (affected by armed conflict, disaster, children in prison or who are with their parent(s) in prison)
- Learners from very poor families (urban poor, poor families in remote areas)
- Child labourers, street children, trafficked children and abused children
- Children affected or infected by HIV and AIDS
- Orphans and abandoned children

Finding a poor ethnic girl living at very remote area whom is illiterate because of her disability.
4

NATIONAL TO LOCAL
DRILL DOWN

Schools in Papua New Guinea
DRILL DOWN

Schools in Papua New Guinea
DRILL DOWN
Schools in Papua New Guinea
5
STANDARDS
Norms and Standards

- SDMX
- ISCED
- DQAF
- NSDES
- SDG4 Indicator Framework
- NIF
- NESS
6
HUMAN RIGHTS
Duty Bearer Right Holder

Shared Responsibility Clear Accountability

Data Information Evidence

Input Output Outcom Impact

Shared Responsibility Clear Accountability

Duty Bearer Right Holder
Dashboards

SDG Index and Dashboards Report 2018
Global Responsibilities: Implementing the goals

Sustainable Development Goals

https://dashboards.sdgindex.org/#/

Select one of the 17 SDGs to see it on the map or display the global index
### DSS – Decision Support System

#### FRAMEWORK
Di Monitoring
Lao PDR National Education Plan

#### INDICATOR

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsible party</th>
<th>ESDF Reference</th>
<th>Legislative Requirement</th>
<th>Status</th>
<th>Baseline</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools receiving block grants (Number)</td>
<td>DOF (DOP, DPC)</td>
<td>Page 33, Page 34</td>
<td>Ministerial instruction and utilization</td>
<td>Planned Actual</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
<td>2,500</td>
<td>3,000</td>
<td>4,000</td>
</tr>
</tbody>
</table>

#### Status

- **Baseline - Target**

#### Planned - Actual
Profiles Data at a glance

http://uis.unesco.org/en/country/kr

https://www.epdc.org/research/education-profiles

https://wenr.wes.org/tools-resources/country-profiles
Eatlas
Data at a glance

http://uis.unesco.org/en/visualisations

REAL-TIME
# Responsive decision for education

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Frequency</th>
<th>Coverage</th>
<th>Cost</th>
<th>Quality</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Census</td>
<td>10 years</td>
<td>Subnational</td>
<td>Very high</td>
<td>High</td>
<td>1-2 years</td>
</tr>
<tr>
<td>Household Survey</td>
<td>3-5 years</td>
<td>National</td>
<td>High</td>
<td>High</td>
<td>1-2 years</td>
</tr>
<tr>
<td>Administrative System</td>
<td>On-going</td>
<td>Subnational</td>
<td>Low</td>
<td>Medium</td>
<td>Real-time</td>
</tr>
<tr>
<td>Online/Mobile Survey</td>
<td>On demand</td>
<td>Varies</td>
<td>Low</td>
<td>Low</td>
<td>Real-time</td>
</tr>
</tbody>
</table>
Responsive decision for education

www.classmapedu.net
ClassMap

A real-time online mapping platform to make all schools visible and match with potential supporters

Plot your school location with basic information!

Prioritize supports needed for your school & learning centres

Get connected with potential supporters!

For more information, please contact:
Mr. Ichiro Miyazawa
Programme Specialist, UNESCO Bangkok
i.miyazawa@unesco.org

www.classmapedu.net

FREE DOWNLOAD
GET IT ON
Google Play

www.classmapedu.net
FOUR V

**Volume**
The quantity of generated and stored data.

**Variety**
The type and nature of the data. Big data draws from text, images, audio, video; plus it completes missing pieces through data fusion.

**Velocity**
In this context, the speed at which the data is generated and processed to meet the demands. Big data is often available in real-time.

**Veracity**
The data quality of captured data can vary greatly, affecting the accurate analysis.
Cairo poverty levels

Can Twitter traffic in Egypt tell us anything about changes in unemployment and poverty levels?
Eyes Everywhere

Drone data helped focus emergency response after an earthquake on 25 Apr 2015 in Nepal
Non-Open DATA

• Making data available for a charge.
• Only registered members or customers can have access to data.
• Use of a proprietary or closed technology or encryption
• Copyright and patent forbidding (or obfuscating) re-use of the data.
• Restriction of robots to websites.
• Aggregating factual data into "databases" which may be covered by "database rights" or "database directives" (e.g. Directive on the legal protection of databases).
• Time-limited access to resources.
• "webstacles", or the provision of single data points as opposed to tabular queries or bulk downloads of data sets.
• Political, commercial or legal pressure on the activity of organisations providing Open Data.
Capture
Integrate
Analyze
Visualize
Monitor

SDG Indicator Framework
SDMX Standard for Data and Metadata Exchange
Manage Disaggregated, Subnational Data
Target Vulnerable with Human Rights Approach
EMERGING DATA TRENDS TO SHAPE FUTURE EDUCATION
Credits:

• Extracts from the input made by Mr Kris Oswalt - President CFS Foundation during the session on M&E of Education, UNESCO International Symposium on Education Policies for 2030, UNESCO HQ Paris, 19 January 2016

UNESCO Bangkok

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