Brave New World
That Has Such Education Futures!

December 1, 2020

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President & CEO, Commonwealth of Learning
The Commonwealth

54 developed and developing nations around the world
To help Commonwealth governments and institutions use technologies to improve and expand access to education and training.
Plan

• Issues during COVID-19
• COL response
• Futures of Learning
• The Future we want
Issues during COVID-19
COVID-19 and Education

• Technology (Connectivity, costs and electricity)
• Teacher Capacities
• Inequalities
1 Technology issues: Stanford University

• 16% undergraduates did not have access to internet for half the time

• 60% of low-income students did not have a private place to study

Source: https://www.tonybates.ca/2020/08/30/lessons-from-stanford-universitys-move-to-remote-learning/
University of Hyderabad

- 40% students indicated “unreliable connectivity
- 30% worried about cost of data
- 18% can’t access online classes at all.

2. Teacher Capacities

- ICT for teaching and learning
- Assessment of learning outcomes
- Access to technology

Teachers engaged in alternative teaching

3. Inequalities

Source: https://en.unesco.org/covid19/educationresponse/girlseducation
Youth unemployment

Unemployment, youth total (% of total labor force ages 15-24)

Source: data.worldbank.org, retrieved on 11 June 2020
Learning Inequality during COVID-19

- Learning loss of about 3%
- Learners from less educated homes 55% more prone to learning loss

Source: https://osf.io/preprints/socarxiv/ve4z7/
COL’s multi-pronged Approach

- Guidance & Advice
- Capacity building for Teachers
- Responding to country-specific needs
- Promoting collaboration
Capacity Building of Teachers

Cybersecurity Training for Teachers (CTT 1)

Mobile Learning with Multimedia
Starting October 12, 2020
Duration: 4 Weeks

MOOC
http://www.telmooc.ca/

Blended Learning Practice
19 April - 16 May

https://www.blpmooc.org/
Support during the Pandemic

• **Nigeria**: dual mode
• **Antigua and Barbuda, Kenya and Malaysia**: Integrating technology
• **Zambia**: Integrating employability skills
• **Rwanda**: Online safety and privacy policy
Promoting OER-based Online Learning

- Support network for educators
- Share online courses
- Provide open technology tools
- Build capacity

https://oer4covid.oeru.org/
Content aligned to curriculum

• Video-on-demand: Fiji, Nauru, Samoa
• STEM courses

https://pacificregionalchannel.org/
Audio-based mobiMOOCs
International Partnership of Distance and Online Learning for COVID-19

The unprecedented developments due to COVID-19 have led to the closure of educational institutions around the world. UNESCO estimates that about 80% of the world's student population is unable to attend classes and is required to stay at home. Particularly vulnerable are those learners in developing countries who may not have access to electricity, devices or connectivity to follow online lessons which are being provided in many developed countries and urban contexts.

https://opendoor.col.org/

- Intergovernmental organisations

- Universities and educational institutions

- Associations and networks

60+
Futures of Learning
1. Preferrable Future

- Universal primary completion will be achieved in 2042
- Universal lower secondary completion in 2059
- Universal upper secondary completion in 2084

Inclusion

• Canada: 10.7%
• India: .56%
• South Africa: 1%. For example, in South Africa 80% of disabled people aged 20-24 are not in tertiary education.
The ‘Learning Crisis’

- In West and Central Africa, less than 45% students in Grade 6 achieved competency level in maths and reading
- In South Africa, majority of Grade 4 students displayed the capacity of Grade 1

(World Bank, 2018)
Preferable Future of Education

• Equity
• Inclusion
• Quality
• Lifelong
2. Probable Future

**Face-to-Face Courses**

**ICT integration in teaching and learning**

**Blended Courses**

**Open and Distance Learning**

**Distance/Online Courses**

- MOOC
- Mobile learning

**Blended Learning**
More Personalized Teaching: AI

- Can provide an intelligent, personal tutor for every learner
- Encourage intelligent support for collaborative learning
- Adaptive group formation
- Expert facilitation

Example of AI in Education

Use of Chatbots

Text, Video and Animated Images form the backbone of the chatbot. These chatbots too have QR-codes so that videos can be viewed directly from the smartphone. While dialogues/conversation are important in learning programming but programming can’t be learnt entirely through these type of communication. Thus, the chatbot also support immersive learning and visualizations, so that difficult Java programming concepts can be explained easily for easy understanding and to reduce the mental load of the students when learning programming. QR-codes, videos and animated images together provide the immersive learning environment in the chatbot.

Figure 6 The media components used in the chatbot as viewed from the desktop
Example of AI in Education

Live experience: AR/VR

Inquire: an intelligent textbook

Source:
http://inquireproject.com
Assessment

- Badges & micro-credentials
- Recognition of prior learning
- Transnational qualifications frameworks for mobility
- On-demand examination
- Authentic, project-based assessment

https://unesdoc.unesco.org/ark:/48223/pf0000264428?posInSet=4&queryId=263-e455b5530bec-40c7-91a9-5cdea42e1ca4
3. Possible Future

Trends

At the current rate there will be larger and more frequent climate related disasters


Globally, the number of climate disasters has tripled since 1980, while, hot weather in 2016 broke the historic record set in 2015
Cyclone Idai
Mozambique

Classrooms affected:
3,504
Students affected:
335,132

Devastated numerous schools on Grand Bahama and Abacos Islands

Source: CARE; Retrieved from https://www.care.org/emergencies/cyclone-idai

The impact of the climate crisis on education

- Infrastructural damage
- Damage to resource and materials
- Loss of data and records
- Collapse of systems = Out of school youth
Education and emissions

**Direct**
- Emissions from construction of schools/infrastructure
- Emissions from energy use in schools
- Learner emissions

**Indirect**
- Emissions from ‘development’ and economic growth associated with higher levels of education in a country
Research on Emissions and ODL

3x less carbon emissions

Travel – greatest contributor

Mode of delivery - determinant

The future we want
1. The future is blended

- Use of appropriate technologies to create more **blended learning** opportunities
- **Mobile Messaging** can foster development of new genre of learning management systems that can integrate **social media** and **Chatbots**
- Certification based on **Blockchains** and **Open Standards** will enable independent verification of learning to strengthen lifelong learning

Source: https://commons.wikimedia.org/wiki/File:1K6F_Crystal_Structure_of_the_Collagen_Triple_Helix_Model_Pro-Pro-Gly103_04.png
2. Leaving no one behind

- For persons with disabilities
- Women and disadvantaged groups
- People in remote areas
3. Lifelong learning for all

• Learning to learn online
• Creating an ecosystem for lifelong learning
• Providing just-in-time training for livelihoods

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4. Respecting the planet

Community-based learning instills a sense of interdependence and responsibility which is crucial to behavioral change for environmental conservation.
5. Learning to live together

“Relationships are based on four principles: respect, understanding, acceptance and appreciation.”

— Mahatma Gandhi
Transformation for a ‘brave new world’

**Typical Approach:**
- Skills / Competencies
- Employability and Entrepreneurship
- Achievement

**Transformative Approach:**
- Empowerment for Change
- Environmental Conservation and Global Citizenship
- Accomplishment
Thank you

www.col.org

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