

Skilling a Nation's Future



Presentation Transcript

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It is an honour to be here in at Delta University and I thank Prof Yehia al Mashad and the organisers for the invitation. I have prepared this presentation with our Vice President, Dr K Balasubramanian.

Let me begin with a brief introduction to my organisation the Commonwealth of Learning or COL which is an intergovernmental organisation established by Commonwealth Heads of Government. Our headquarters are in Metro Vancouver, Canada and we have a regional office the Commonwealth Educational Media Centre for Asia in New Delhi, India.

Our mission is to help Commonwealth member states and institutions to harness the potential of distance learning and technologies for expanding access to education and training.

My topic today is 'Skilling a Nation's Future', a top priority for most governments in both developing and developed countries. After setting the global context, I will look at two game changers that can help us skill our youth in more cost-effective ways. These are Technology Enabled Learning and Open Education. I will conclude with some suggestions in which we can prepare our young people for livelihoods opportunities.

Governments are looking for ways in which these young people can be skilled for employment and entrepreneurship. In fact the Indian Prime Minister Mr Modi has called for skills to be developed at speed and at scale—we can capture this as the 3 S's: skills, speed, scale. But first, let us turn our attention to the global context in terms of demographics, the increasing demand for higher education and the phenomenal growth of technologies.

There are 1.2 billion young people between the ages of 15-24, most of them in developing countries. There is a high rate of unemployment especially among the youth.

Egypt has over 22.9 million young people, which accounts for 28% of the total population.

The global rate of unemployment among the youth is over 12 %

The unemployment rate for young people in the 16-24 year age-group in Egypt is nearly 39%. Education, especially higher education, is seen as a way out of this situation.

In the previous decade we have seen an unprecedented demand for higher education. In 2007, there were 150 million tertiary students globally. We find that the number has increased to 165 million in 2012 with an estimate that this is expected to rise to 263 million in 2025.

What does this mean in real terms? If we are to accommodate the children who will reach enrolment age between now and 2025, we will need to build four new universities every single week with a capacity of 30,000.

The rate of tertiary enrolment rates has increased in Egypt in the past decade to 33%-- then why the high rates of unemployment?

Has the increase in participation resulted in better quality higher education? A 2011 study in the US found that 36% of college graduates did not show any significant cognitive gains over four years and that half the employers surveyed said they had trouble finding suitable graduates to hire. So there clearly is a mismatch between what we are teaching and what the labour market needs.

In which ways can the phenomenal growth in technology help?

What kinds of technology? While in North America, there are over 80 internet users per 100 persons, in developing countries the average drops to 31%. The world average stands at 43.6%

In Egypt, while the number of internet users is over 30%, the real growth has been in mobile devices. How can institutions harness the potential of this affordable and available technology?

What are the emergent trends in technology globally? The recent Horizon report estimates that in the next two years, blended learning would be used increasingly, and institutions will redesign their learning spaces. Over the next three to five years, the focus will shift to measuring learning outcomes and Open Educational Resources (OER) will be available in more subject areas. In the longer term, we will see more innovation and collaboration within institutions (Johnson et al, 2015). Are we prepared to make these transitions effectively?

Within this context, let us briefly review the first major game changer, technology enabled learning, and what opportunities it provides for skilling our youth .

As governments and policy makers sought to expand access to education, reduce costs and improve standards, they realized that traditional brick and mortar solutions would not be enough. With more access to technologies, we have seen an increasing trend towards online learning, especially in the developed countries. According to a Babson survey, 33.5 % of all higher education students in the US take at least one online course.

What is the situation in Egypt? The Ambient Insight report in 2015 states that elearning is expanding in the Middle East.

Over the past three years, we have seen the phenomenal growth of Massive Open Online Courses or MOOCs, a form of distance and online learning.

Major consortia of the top universities on both sides of the Atlantic have led the movement. Coursera, Udacity, EdX and FutureLearn are the well-known leaders in MOOCs. While the first three are led by research universities in the US, FutureLearn was initiated by the Open University UK.

The three big US MOOCs attracted 25 million people since 2012, are open to anyone and offered online by top professors from reputed institutions.

Who are the MOOC participants? Most already have a first degree, are mostly male and those who take MOOC, often become serial MOOC-takers.

What impact have MOOCs had on learners? A recent study shows that the majority of learners reported career-related and educational benefits. 33% got career benefits such as promotions and pay raises while 18% gained credit towards an academic degree.

The same study shows that students from less educated and less affluent backgrounds are more likely to benefit more in term terms of career advancement.

What of impact on teachers? Thirty instructors from Duke university in the US who offered MOOCs, reported an improvement in classroom materials and activities; developing better measures of student learning and adopting new pedagogies.

Have MOOCs reduced the costs of higher education? Costs per completer of an 8 week course at Columbia University was \$74, while a 4-week course at the American Museum of Natural History cost \$272 per completer. These are early estimates but demonstrate that learning can be offered at scale and at lower costs.

MOOCs have so far been offered in HE. What about MOOCsfor skills development? COL in partnership with IIT-Kanpur offered a MOOC on mobiles-for-development, covering technology as well as agriculture, mobile learning, inclusive finance and banking. This interdisciplinary open course attracted registrants from 116 countries, 62% of whom were active participants. COL also offered a MOOC for Gardeners using basic mobile phones under which over a thousand gardeners were trained over a six week period.

That brings me to the second game changer: open education. This includes flexible work-place based learning, Open Educational Resources or OER and open access policies. Let me just focus on OER.

With the rise of social media, there has been a global movement towards collaboration in the development and sharing of content and we have seen the rise of Open Education Resources or OER. The fundamental principle is that any materials developed with public funds should be made available free to others. We

have seen the emergence of large global repositories, such as the MIT's Open Courseware initiative, Merlot among others.

As we know, OER are educational materials which are free and freely available. OER can be reused and repurposed to suit different needs and could be available in any medium, print, audio, video, digital. One key difference between OER and other educational resources is that OER have an open license, which allows adaptation and reuse without having to request the copyright holder.

There has been a phenomenal growth of OER in the last few years. While the US has played a leadership role globally, many developing countries are beginning to adopt open licence policies, with China, India and Nigeria contributing substantially to free and open content.

What impact have OER had on teachers? A 2014 study shows that over 80% of the teachers surveyed said that the use of OER has helped them to one, adopt a broader range of teaching and learning methods; two, use a wider range of multi-media and three, reflect more on their teaching practice.

Another study confirms these findings. The majority of teachers said that the use of OER had helped them extend their coverage of the curriculum and adopt a broader range of teaching methods.

Students too reported a positive impact of OER on their levels of interest and satisfaction with their studies. 39% said that their grades had improved.

Robinson et al report that students who used open textbooks scored .65 points higher in science tests than those who used traditional textbooks.

As we know textbooks are a costly proposition. In the USA, according to David Wiley, 31% students don't register for a course because of textbook costs. But initiatives such as the Utah Textbooks project have demonstrated that it is possible to use OER to get a zero cost online textbook or a \$5 printed copy.

In which ways can we harness the potential of OER for skills development? COL has developed a Directory of OER which has nearly 500 OER resources for skills development from UK, India and Malaysia.

Khan Academy is another rich source of OER for skills development and the content has been translated into Arabic.

How can we skill our young people with speed and at scale?

The international community has identified 17 sustainable development goals this September and these goals will define the development agenda for the next 15 years.

Goal 4 of the 17 SDGs identified focuses on education. The objective of this Goal is to 'ensure inclusive and equitable quality education and lifelong learning opportunities for all' by 2030.

The goal has several targets: one, quality education must lead to effective learning outcomes, two, we must focus on developing skills for employment, entrepreneurship and global citizenship, and three,

having qualified teachers in place will be critical to achieving these targets. This then will be the agenda as we go beyond 2015. What will be the key priorities for teaching and learning?

A McKinsey report points out that ‘employers, education providers and youth live in parallel universes’ and very often these worlds do not meet. Over 50% of the youth surveyed did not believe that their secondary education would lead to employment. Similarly about 50% of the employers did not think that the new graduates had the skills to be hired even at the entry level. There seems to be a disconnect between what we teach in our schools and universities and what is required by the job market.

What is it that employers want? As the Results for Development Institute’s report points out that employers are concerned about non-cognitive skills just as they are about cognitive and technical skills. These relate to communications, teamwork, leadership, entrepreneurship etc. What are we doing about incorporating the training relating to the non-cognitive skills in our curriculum?

Geoff Colvin’s recent book *Humans are Underrated* says that the high achievers in the C21 will be ‘relationship workers’ as opposed to the ‘knowledge workers’ of the C20. Robots will perform most tasks better than human beings but it is humans who have social skills and empathy, can solve complex problems and are creative. How do we nurture such skills among our learners? Medical colleges are beginning to introduce literature as required reading so that the students would develop a better understanding of other human beings.

What can we learn from other countries? Four key strategies have been identified to get Europe’s youth into work. One is to invest in innovations so that education becomes more affordable and accessible. Two, to bring together young people, employers and education providers, something that we need to focus on. Three build enabling structures and four share the practices that work. Context is always important and the models that we adopt must be ‘fit for purpose’.

This year, the unemployment rate in Switzerland dropped from 7 to 6%. The Swiss do not think that the university is the right destination for more than 15% of its young people. It has a highly developed vocational system and invests in apprenticeship for skills development. Germany and Austria follow similar models, one result of which is lower unemployment rates.

But is it enough to provide skills alone? Let me share what a young Ethiopian woman said ‘if someone can give me the skills and the opportunity to work, I know I can achieve my goals’

The youth need not just the skills but also the opportunities that their societies provide. Governments have a major role in developing not just sound educational policies but also enabling policies in trade industry and agriculture.

How can we, as institutions, address the challenge of skills development, gainful employment and livelihoods? One, by transforming the curriculum to integrate cognitive and non-cognitive skills. Two, harness appropriate technologies and emerging developments such as MOOCs and OER. Three to ensure there is a convergence between the needs of the labour market and the education provided to youth.

And as Stiglitz and Greenwald say in their book *Creating a Learning Society*, nations progress when they are clear about ‘what is to be learned, the process of learning and the determinants of learning’.

With that, let me thank you for your kind attention.