Access, equity, quality and student success: Leading the digital transformation for inclusion and better outcomes

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UNESCO May 2017, Twitter @minbrt
Higher education is valuable...
“...a growing body of empirical research suggests that better education yields higher individual income and contributes towards the construction of social capital and long-term economic growth” (Roser & Ortiz-Ospina (2016)
Demand for higher education will only increase...
Population breakdown by highest level of education achieved for those aged 15+ in India, 1970-2050

OurWorldinData.org/projections-of-future-education/ - CC BY-SA

83 years to achieve world literacy...
Projected world population by level of education

This visualization shows the Medium projection by the International Institute for Applied Systems Analysis (IIASA). The researchers who created this projection describe it as their "middle of the road scenario that can also be seen as the most likely path".

Source: IIASA (Global Projection – Medium SSP2)
New ways of being and the democratisation of knowledge...
Our world is more connected
How many devices in your family.....
Number of mobile phone users worldwide from 2013 to 2019 (in billions)

- 2013: 4.01 billion
- 2014: 4.23 billion
- 2015*: 4.43 billion
- 2016*: 4.61 billion
- 2017*: 4.77 billion
- 2018*: 4.93 billion
- 2019*: 5.07 billion
The number of smartphone users in the world is expected to reach 2.7 billion by 2019.
Mind you.....
WORLD'S OFFLINE POPULATION, 2016

More than half the world's population is not using the Internet

Still....
In developing countries, the number of mobile-broadband subscriptions continues to grow at double digit rates, reaching a penetration rate of close to 41%.

The total number of mobile-broadband subscriptions is expected to reach 3.6 billion by end 2016.
And the world of work...
‘Skippy’ truths

The era of a tenured ‘job for life’ is over
We could have as many as 5 different careers
And make 17 changes in employers over our working lives.
Jobs are changing...the robots are coming
Almost every job where an employee sits in front of a computer screen and processes and interprets data is at high risk.

The ‘second machine age’ or the ‘internet of things’ – the fourth industrial revolution.
"The question is, is this automation going to produce enough new jobs that technology itself can't do?" (Hess, 2017).
Employers?

Not happy
Pursuit of relevance How higher education remains viable in today’s dynamic world, 2015

Only 49% percent of industry and academic leaders believe higher education meets student needs.

Only 41% believe higher education meets industry needs.

Only 43% across industry and academia believe higher education prepares students with necessary workforce skills.
What do they want?
The new basics

More employers are demanding enterprising skills among young employees. Demand for digital skills up 212% over three years, critical thinking up 158%, creativity up 65%, presentation skills up 25%.

And....
Exhibit 1: Students require 16 skills for the 21st century

21st-Century Skills

Foundational Literacies
How students apply core skills to everyday tasks

1. Literacy
2. Numeracy
3. Scientific literacy
4. ICT literacy
5. Financial literacy
6. Cultural and civic literacy

Competencies
How students approach complex challenges

7. Critical thinking/problem-solving
8. Creativity
9. Communication
10. Collaboration

Character Qualities
How students approach their changing environment

11. Curiosity
12. Initiative
13. Persistence/grit
14. Adaptability
15. Leadership
16. Social and cultural awareness

Note: ICT stands for information and communications technology.
Taking charge...
PwC to end university degree employment requirement

EdX and World's Top Universities Launch MicroMasters Programs: New Master's-Level Credentials to Advance Careers in the Most In-Demand Fields (PR Newswire, September 20, 2016)

http://www.prnewswire.com/news-releases/edx-and-worlds-top-universities-launch...

Employers embrace Digital Badges for skill credentials

Credentials, Reputation, and the Blockchain

by J. Philipp Schmidt  🕒 Monday, April 24, 2017  ⭐ Editors' Pick
Leading higher education ‘uber’ moment
To this...
and this...
And the workplace
And flexible, open and online, by distance, e-learning and so-forth ...
Tablets are in decline—detachable slates are on the up

10 Billion daily video views

500+ Universities, 4200 courses, 35 Million Students

LinkedIn

433 LinkedIn users

MOOC Enrollments

194% CAGR

160K 1.5M 10M 18M 35M

2011 2012 2013 2014 2015

440,000 students signed up for one session of the Understanding IELTS: Techniques for English Language Tests course, which was taught by the British Council.
37 Great Examples of Crowdsourcing


andresmh: https://www.flickr.com/photos/amonroy/
Big brother is watching...
Data is being created on the internet every second...

The Internet in Real-Time

How Quickly Data Is Generated

- Twitter: 11 Accounts Created, 5700 Tweets
- YouTube: 2 Video Hours Uploaded, 2314 Video Hours Watched
- Google: 4608 Search
- Linkedln: 182 User Searches
- Youtube: 2 Video Hours Uploaded
- Skype: 18519 Likes, 1000 Comments, 694 Uploaded
- WordPress: 23 Blog Posts
- Reddit: 1 Posts, 13 Comments, 212 Votes
- Tumblr: 463 Posts
- Pinterest: 238 Pins
- Amazon: 51 Items Purchased, $2359 Money Spent
- Foursquare: 35 Check-ins
- Yelp: 0.5 Reviews
- Mail: 3402778 Emails Sent
- Dropbox: 11574 Files Saved
- Netflix: 386 Hours Watched
- pandora: 1019 Hours Streamed
- Facebook: 52196 Likes, 54976 Posts, 6 GB of Data
- WhatsApp: 12 Accounts Created, 219907 Messages Sent

By the way, in the 1 seconds you've been on this page, approximately 22574 GB of data was transferred over the internet.
...and is integrated into our daily lives

Do you send e-mails?

Do you shop online?

Do you buy groceries?

Do you have a mobile phone?

Do you search the internet?

Do you have a bank account?

Do you own wearable technology?

Do you take public transport?
What next?
Do I have to reinvent myself?

The bad news is time flies. The good news is you're the pilot.
Disruptive innovations are ones that will target specific markets or services...

quite often being neglected by others…
‘For-profit is the model of the future’

JULIE HARE

A decade ago the University of Phoenix was the largest private university in the US, delivering thousands of online degrees to people in search of a second chance at life.

But times change, reputations get tattered, graduates accumulate hefty debts but not necessarily jobs, and political priorities change.

Bill Pepicello, who ran the online behemoth from mid-2006 until he retired in 2014, admits the mass higher education model will need to evolve, but he’s still a true believer in the role and value of for-profit higher education providers.

Dr Pepicello, who was a keynote speaker at the International Council for Open and Distance Education annual forum in Sydney, told the HES the future of her education would evolve into a business model that is more ‘for-profit’.

‘The current business model is not sustainable’

BILL PEPICELLO

Concerns from state ministers that the federal government is not taking the need to reach a new agreement seriously enough, despite Victoria and NSW having already budgeted for future funding in forward estimates.

Only ministers from Queensland, Tasmania and the Northern Territory were in Darwin for the meeting with Ms Andrews, while Victoria sent senior bureaucrats.

The Business Council of Australia said it was “disappointing” state and territory ministers must, as a matter of priority, commit to genuine apprenticeship reform through the National Partnership Agreement. Mr Willox said.

“This reform requires both levels of government to work in partnership with industry to revitalise the apprenticeship system so that it is able to build the required skills and jobs for young Australians.”

NSW Skills Minister John Barilaro, recently elected as Deputy Premier, is understood to want a

Bill Pepicello, who ran the University of Phoenix for eight years, says there’s no reason to be suspicious of the model or any other major organisation as suspicious, he said.

“I can find as many stories about people from not-for-profits who have not had great success from their education. It’s not an indication of quality. The people who the for-profits serve are not

ternal thing. It was a model meant to serve (them) well from begi...
How do I navigate?
Back to basics?

"Disruption is not just about changing technology: it is about changing the logic of a business"
(William P Barnett)

People
Process
Systems
Who are you?” said the Caterpillar…. “I—I hardly know, Sir, just at the present,” Alice replied rather shyly, “at least I knew who I was when I got up this morning, but I think I must have changed several times since then.”
Thank you
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References

[Online Resource]

(Ed Hess, Professor of Business administration at the University of Virginia's Darden Graduate School of Business. https://www.centraltelegraph.com.au/news/robots-are-coming-these-jobs-first/3172605/)

International Bar Association. IBA Global Employment Institute Artificial Intelligence and Robotics and Their Impact on the Workplace