



Fostering Educational and Social Development: the Role of Higher Education in the @4IR Era

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Why it does matter?



Why it does matter?



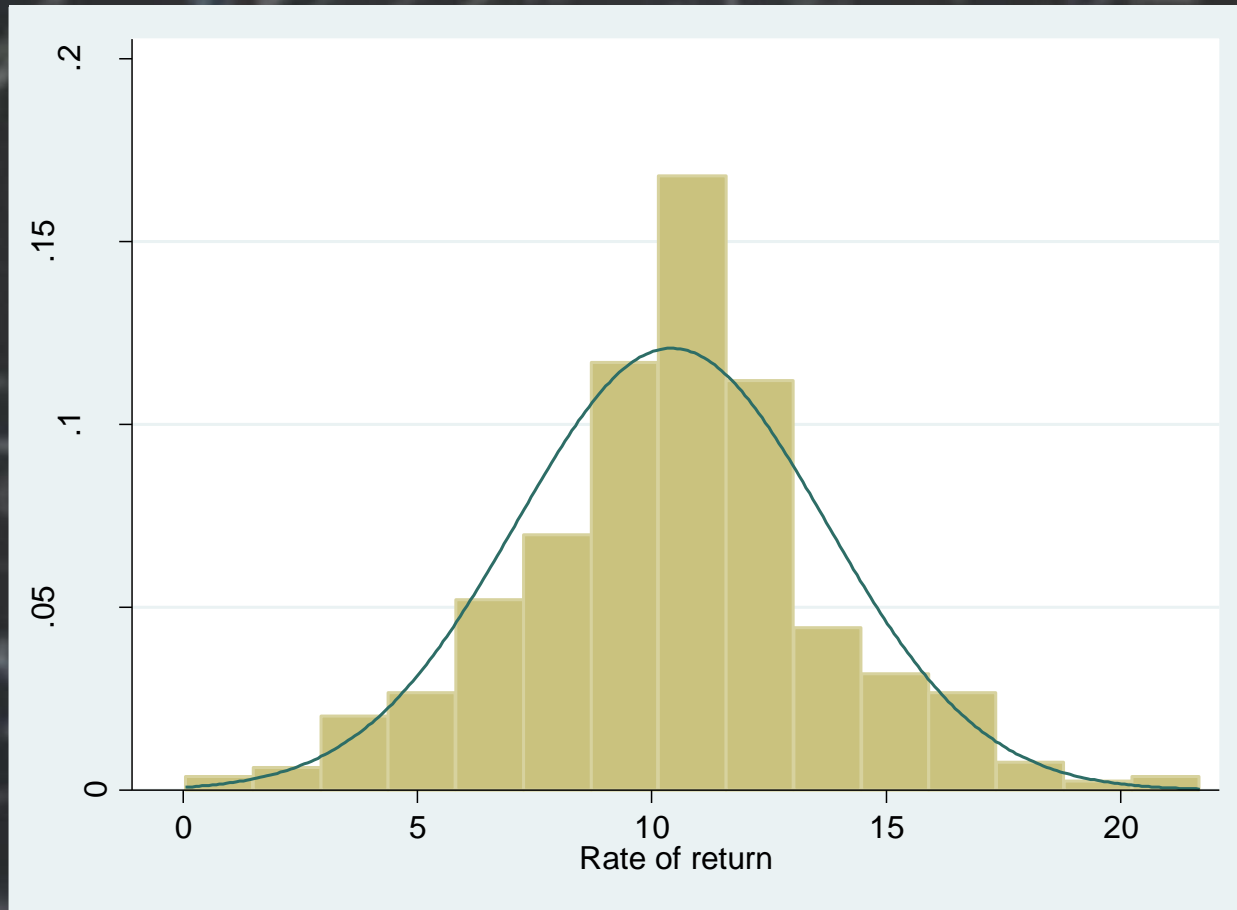
A very different current (and future) context



A typical question:

Is higher education a good investment?

Average rate of return to year of schooling is 10.4%



Based on comparable estimates of 545 observations, 131 economies, 1970-2011
In Latest year available: average rate of return is 9.9%

Returns highest at Tertiary Level

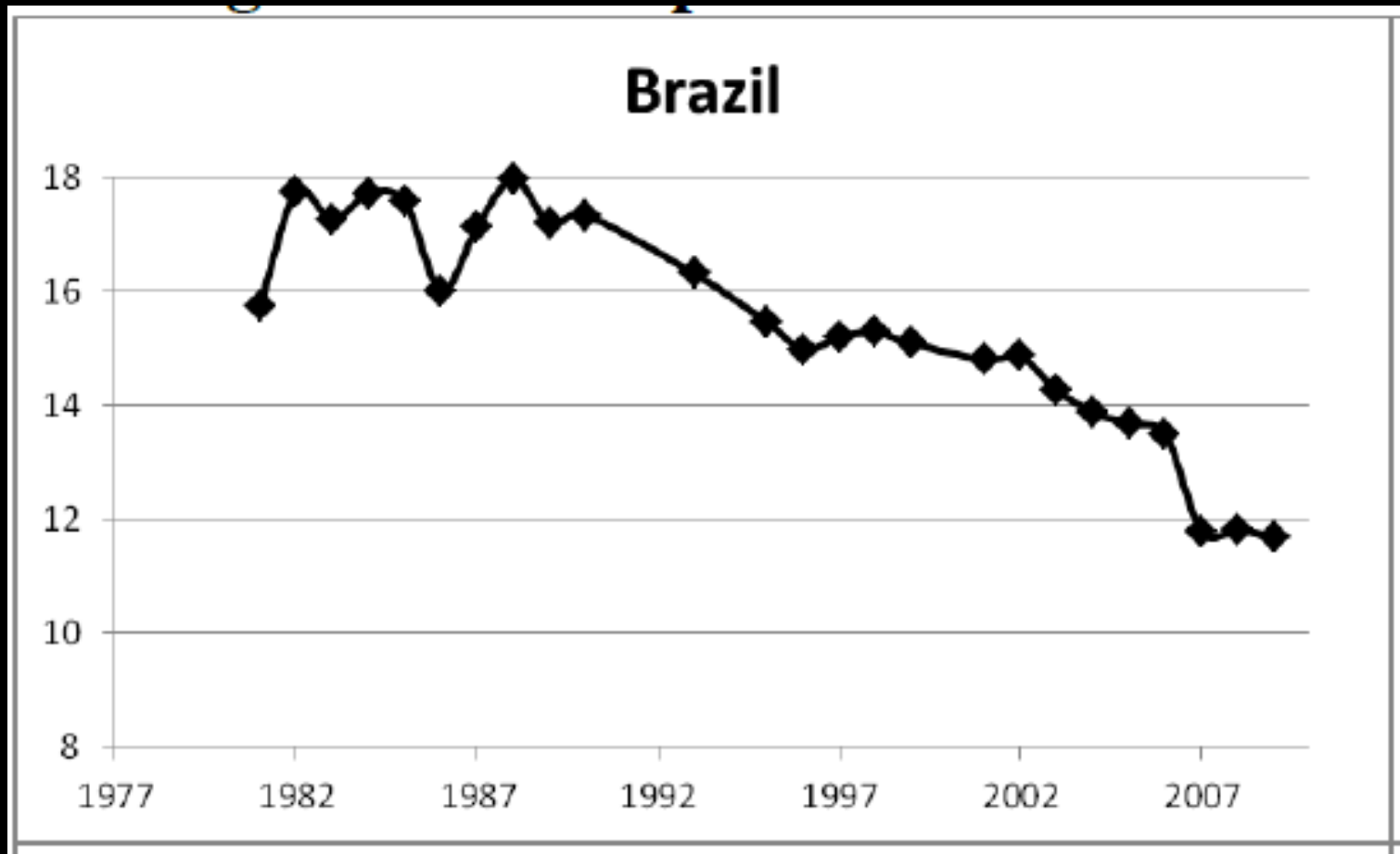


**Table 3: Returns to schooling by educational level and region
(latest available year between 2000-2011)**

Region	Primary	Secondary	Tertiary	GDP/pc (PPP 2005)	N
World	10.3	6.9	16.8	6,719	74
Middle East and North Africa	9.4	3.5	8.9	3,645	7
South Asia	9.6	6.3	18.4	2,626	4
Eastern and Central Europe	8.3	4.0	10.1	6,630	7
High Income Economies	4.8	5.3	11.0	31,748	6
East Asia and Pacific	11.0	6.3	15.4	5,980	6
Latin America and Caribbean	9.3	6.6	17.6	7,269	20
Sub-Saharan Africa	13.4	10.8	21.9	2,531	24

Source: Montenegro, C.E. & H.A. Patrinos (2013). Returns to Schooling around the World. The World Bank

However... returns are declining

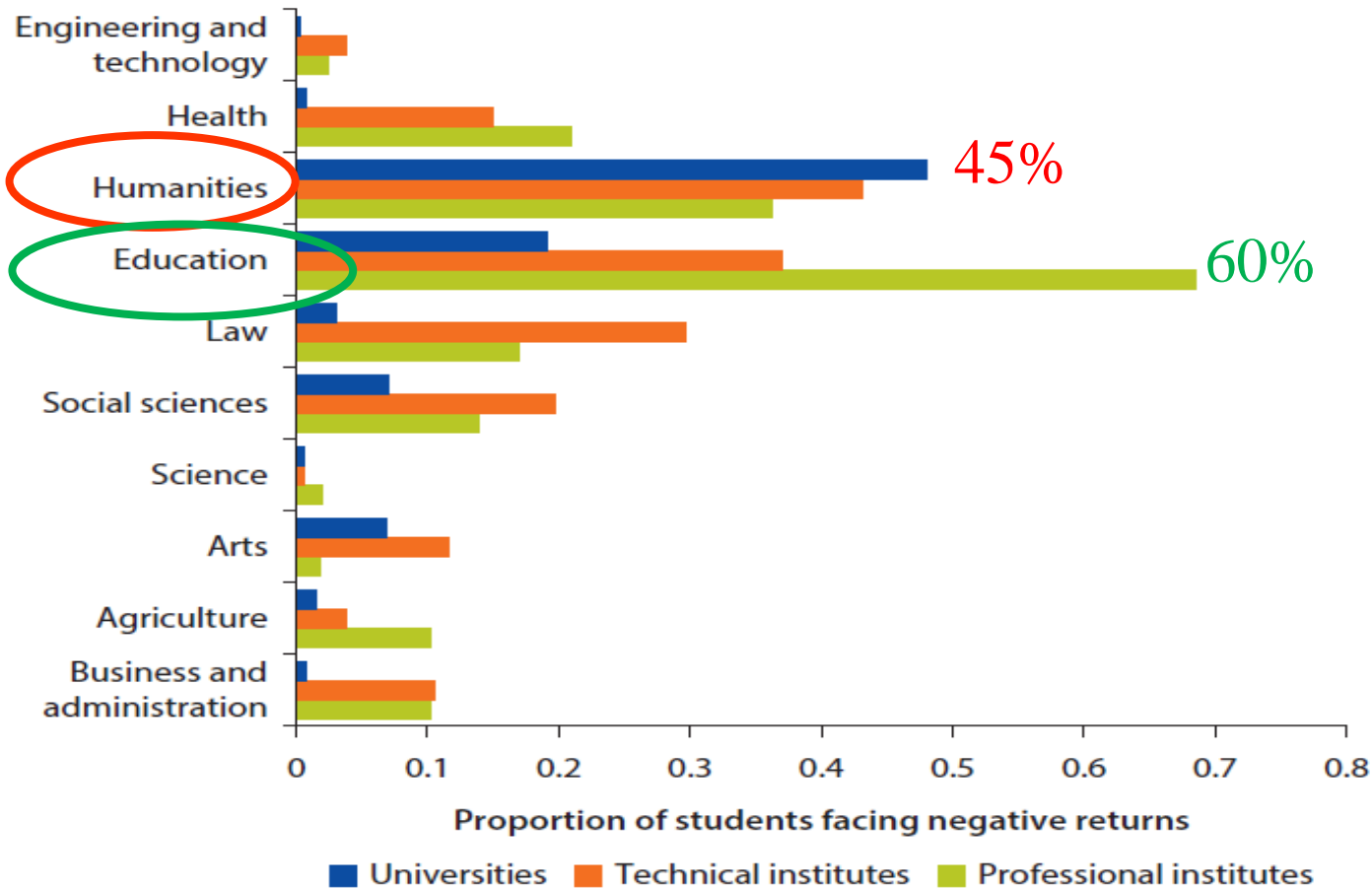


...and even the ones having access to higher education, not always reap the benefits



The case of Angelo

Proportion of students facing negative expected returns to higher education in Chile, by field and HEI type



Source: Espinoza and Urzúa 2016.

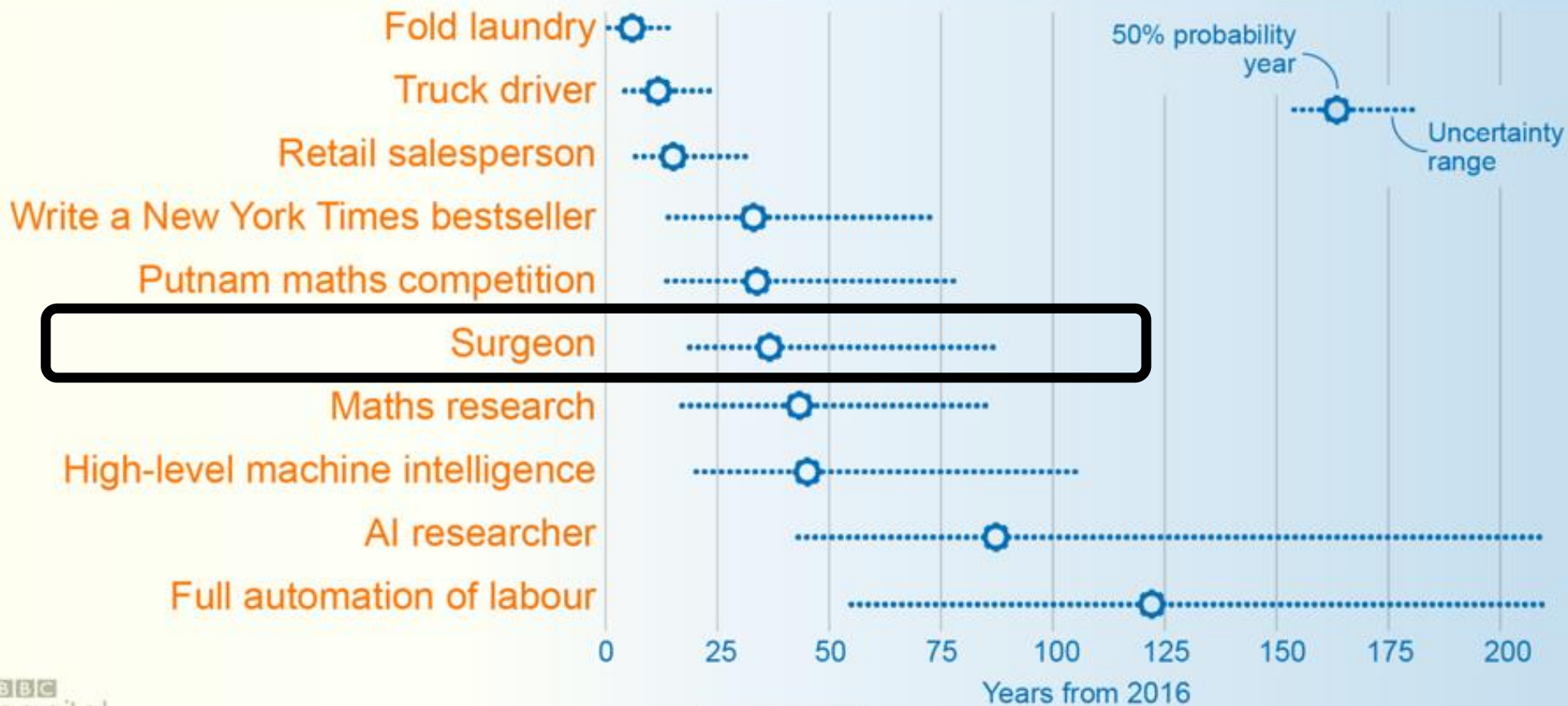
Note: The figure shows, for each field and HEI type, the proportion of students facing negative expected

Is higher education being affected by the ramifications of the IR 4.0?



1784-1840


How many years until a machine can do our job better than us?



Science fiction or reality?

**ONE OF OUR FAVOURITE EMPLOYEES
ISN'T EVEN HUMAN**

THE DA VINCI SURGICAL ROBOT AT AMRITA HOSPITAL HAS COMPLETED OVER 700 SURGERIES IN MULTIPLE SPECIALTIES IN JUST 2 YEARS



da Vinci Xi

NEUROSURGERY	GYN&E-ONCOLOGY	UROLOGY	GI SURGERY	HEAD & NECK SURGERY	CVTS
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AMRITA INSTITUTE OF MEDICAL SCIENCES
Exceptional Technology. Compassionate Care.

Edappally, Kochi-682041, India
www.amritahospital.org

For appointments, call: 9947747069

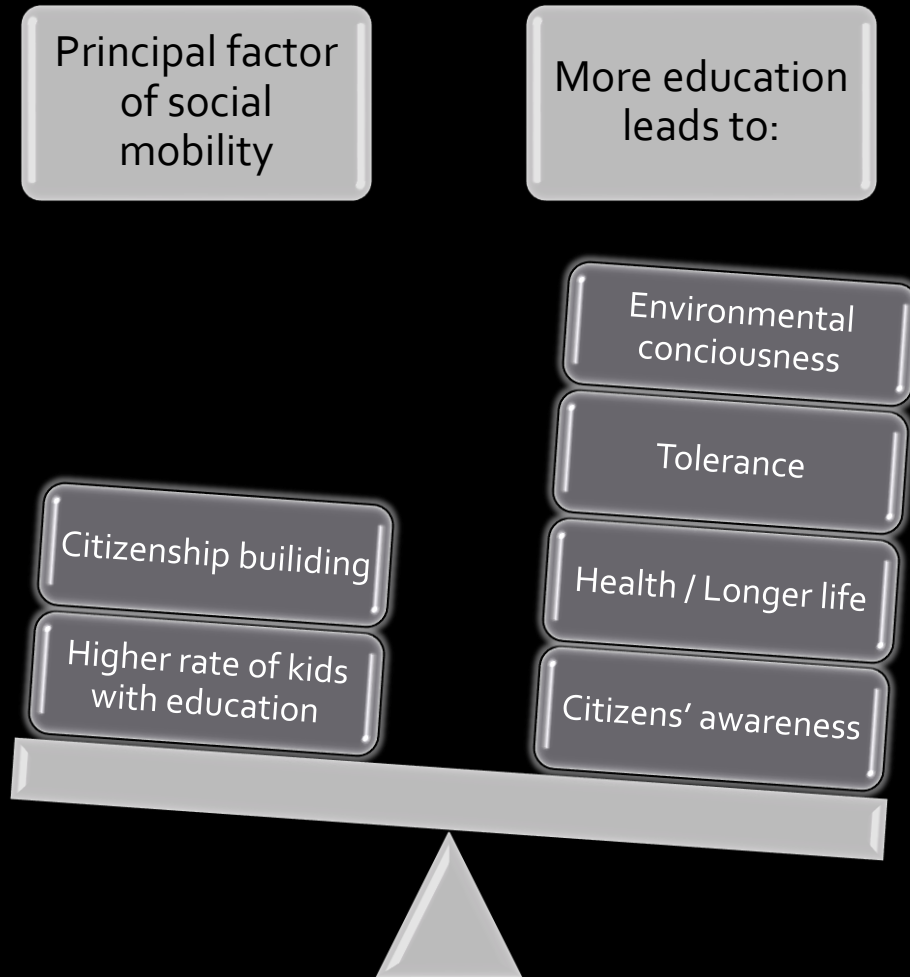
AMRITA

The Da Vinci Surgical Robot at Amrita Hospital has completed over 780 surgeries in multiple specialties in just 2 years

...but is it only about
money?

**Higher Education as a key
enabler of social development**

It is not only about money....More important are the social benefits



LEARNING

TO REALIZE EDUCATION'S PROMISE



LIFE EXPECTANCY



Education means a longer life.

People who graduate from college live at least 5 years longer than people who don't finish high school.

The **NATION'S HEALTH**

A PUBLICATION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

www.thenationshealth.org/sdoh

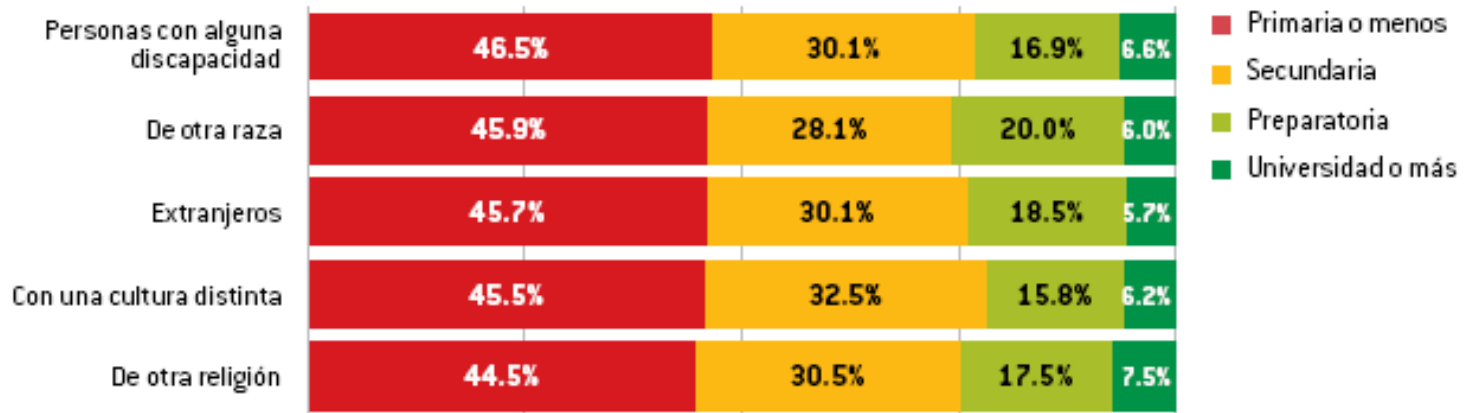
Higher education as the last place in the formal education system to build tolerance and awareness



we aim to **develop** human **personality** and personal **dignity**, respect for **human rights** and fundamental **freedoms** and promoting **understanding, tolerance** and **friendship**

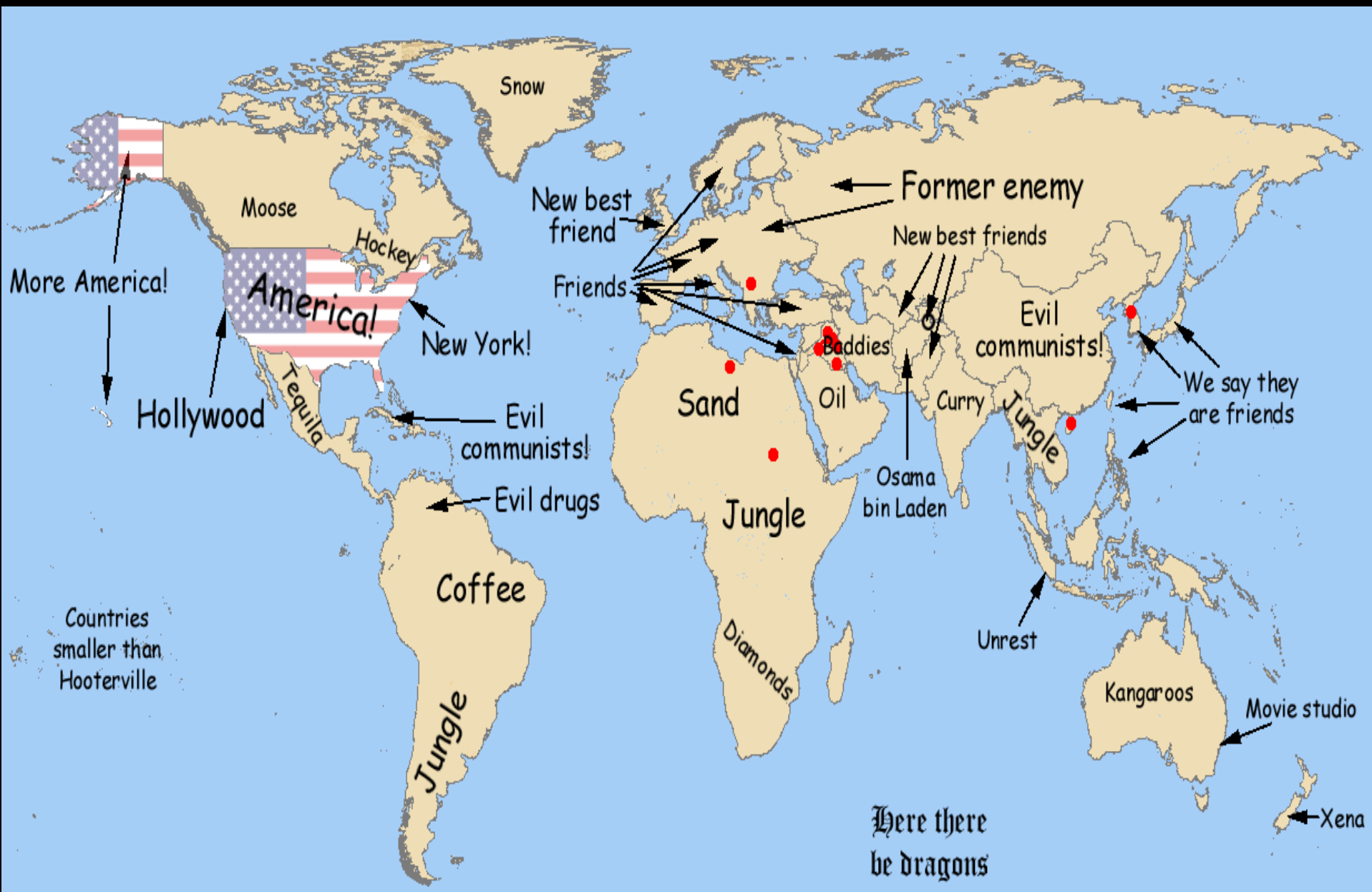
Unwillingness to accept different people ...

Personas que no estarían dispuestas a permitir que en su casa vivieran personas...
Distribución por nivel de escolaridad.



Elementary
education

Higher
education



The world according to the United States of America

• Bombed here

**A renewed role for higher
education:**

***Towards globally-minded but
locally-engaged citizens***

A renewed role for higher education:

*But also higher education institutions as role model
"corporate citizens"*

A very different current (and future) context



The good news...

The current and future environment is a “fertile land” for more and better higher education

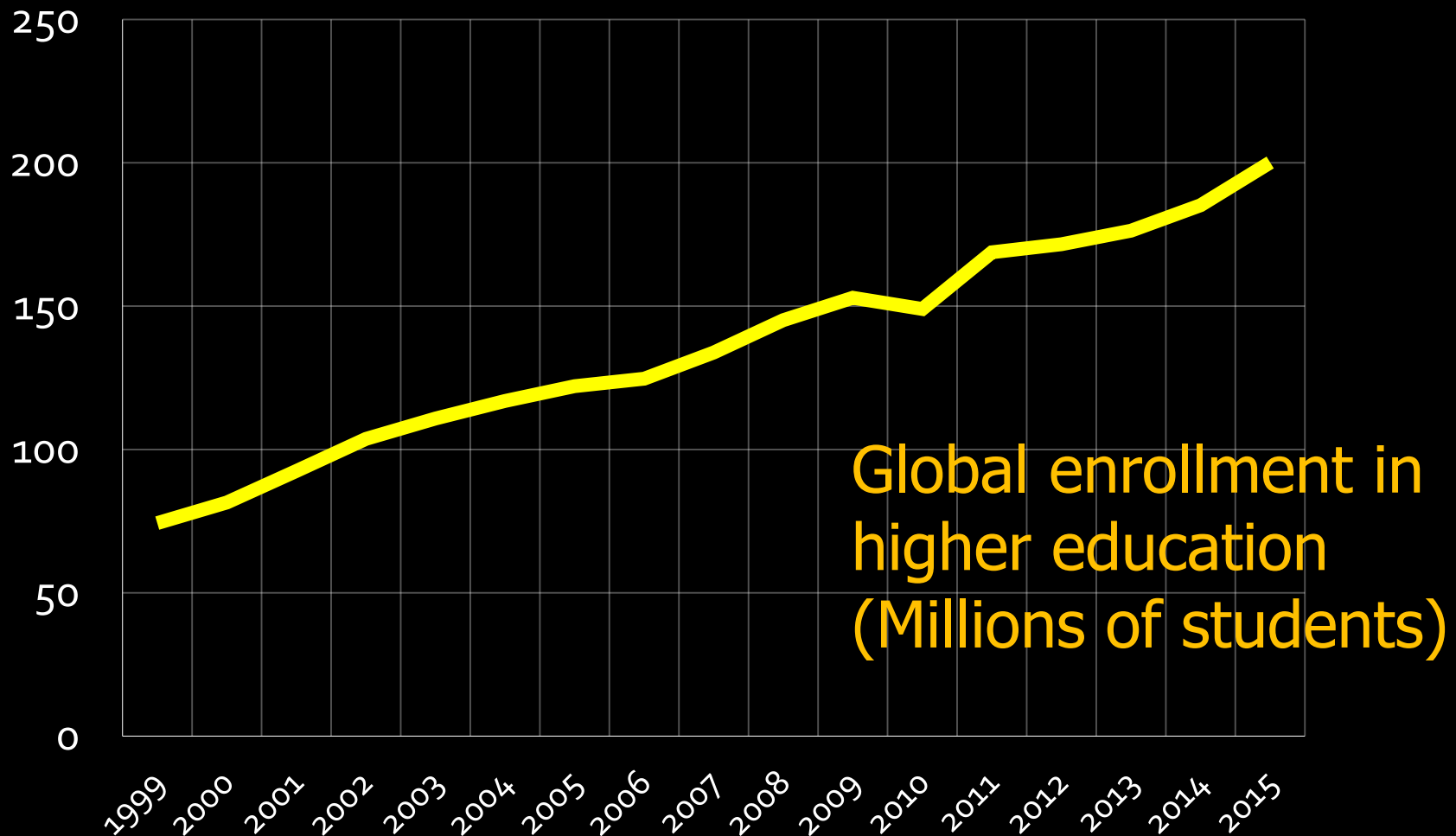


The challenging news

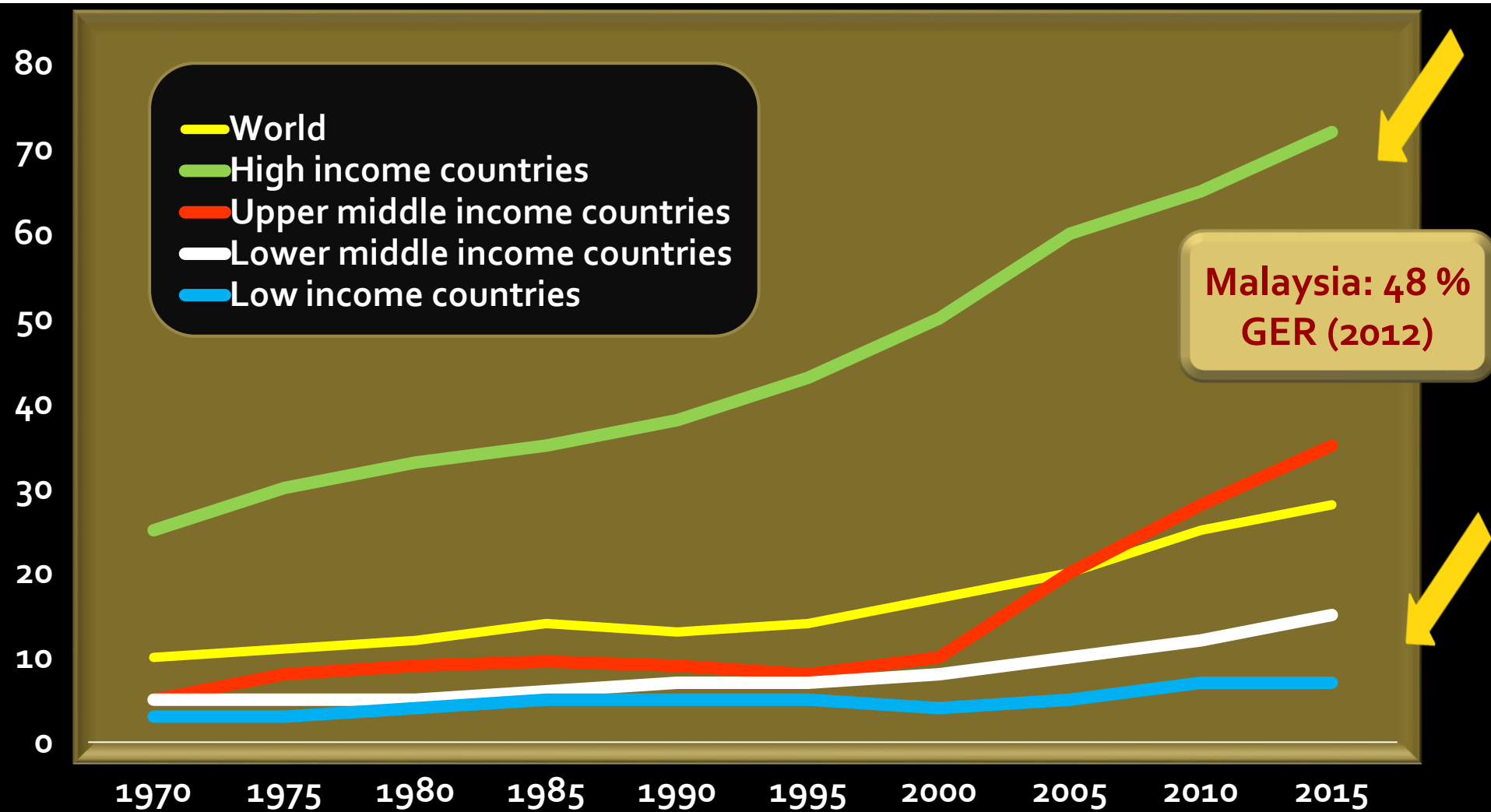
... we don't know how the dramatic social, economic, political and technological shift will impact higher education

...and sometimes it looks like not too many seem to care about it

More than ever more people are having access to higher education ...

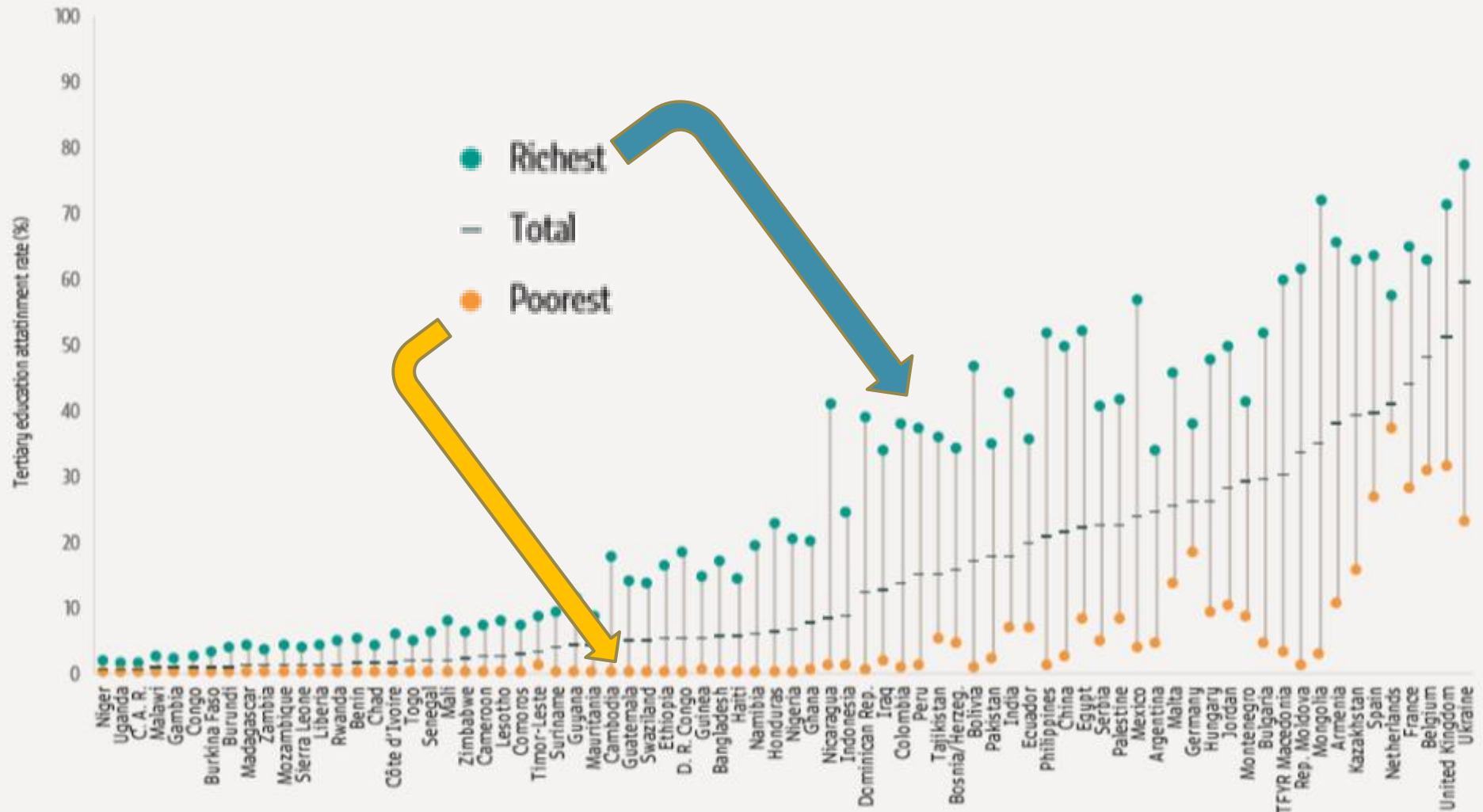


Higher education gross enrollment ratio, by country income group. 1970-2015. %



**Higher education, still a privilege
for a few**

Percentage of 25-29 years old who have completed at least 4 years of tertiary education, by wealth. Selected countries. 2008-2014

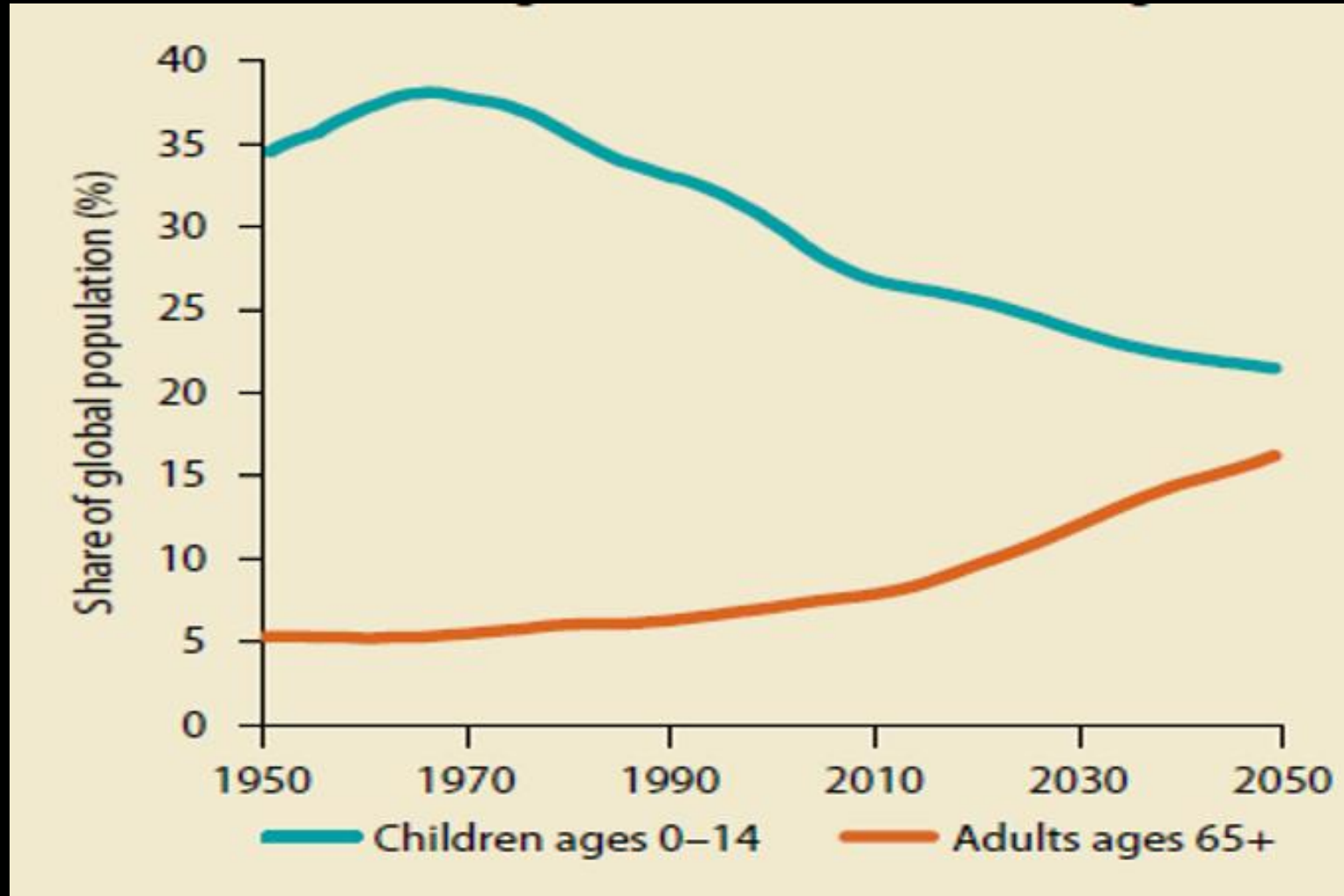


There is still a significant disparity in access

- *Rural*
- *Women*
- *Poor*
- *Socially disadvantaged people*

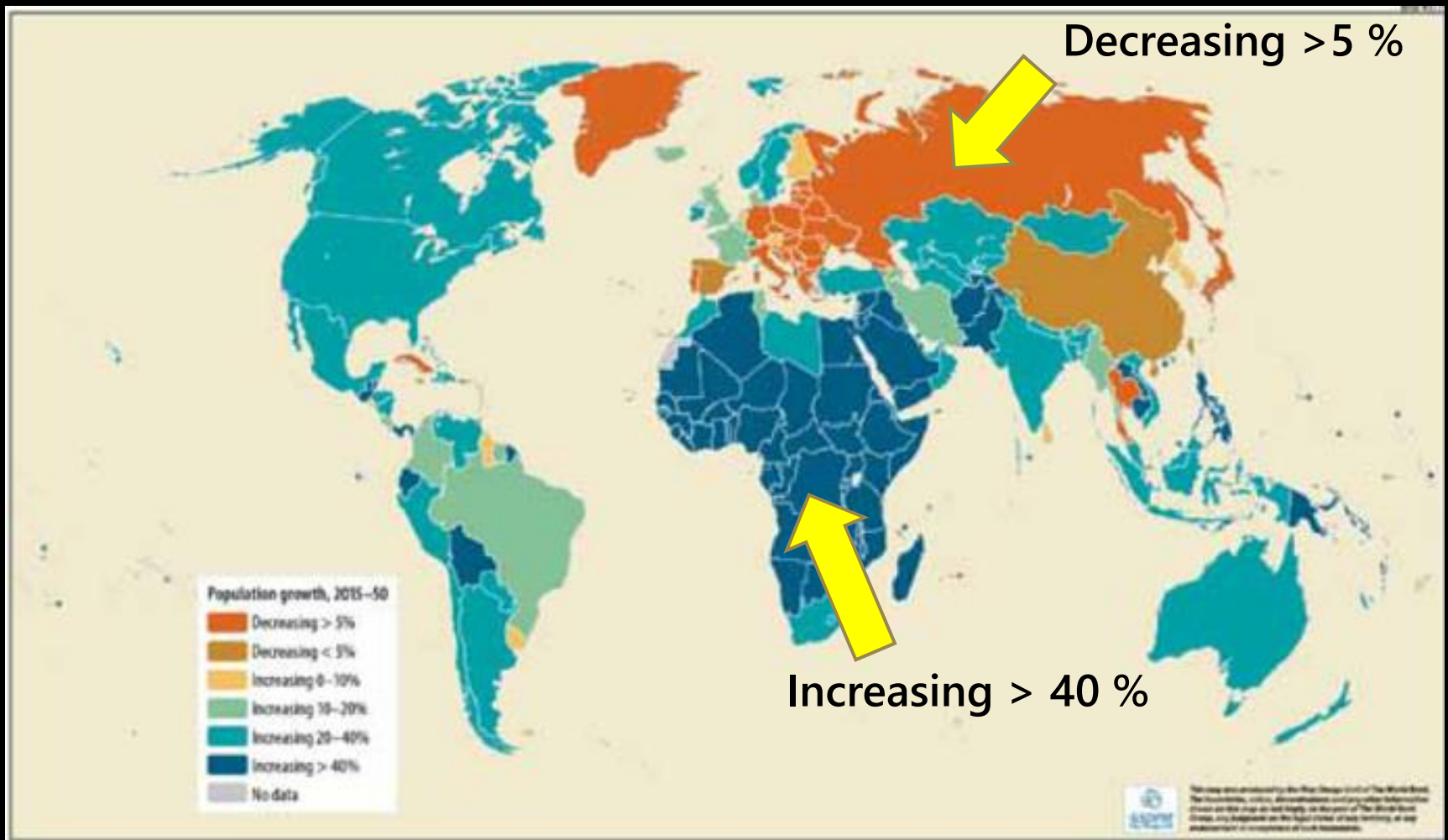


The aged share of the global population is rising, while the child share is falling




Source: World Bank World Development Report 2015

Population Growth 2015-2050



Source: World Bank. World Development Report. 2015

A dramatic demographic shift...



From 2015-2050, the total population in most of Europe will decrease by 5 % while most of Africa will grow by more than 40 % (World Bank, 2015).



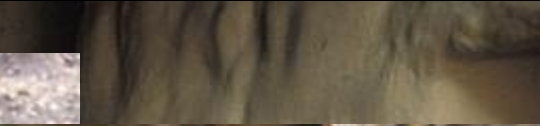
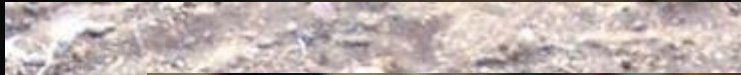
By 2030, 42 % of the youth globally will live in Africa



Currently more than 70 percent of youth in Africa live on less than 2 U.S. dollars per day

**2025-2050: Brutal
pressure for talent**

An unequal world...



Distant realities...



Distant

realities

Distant

realities



Distant (and no so distant) realities



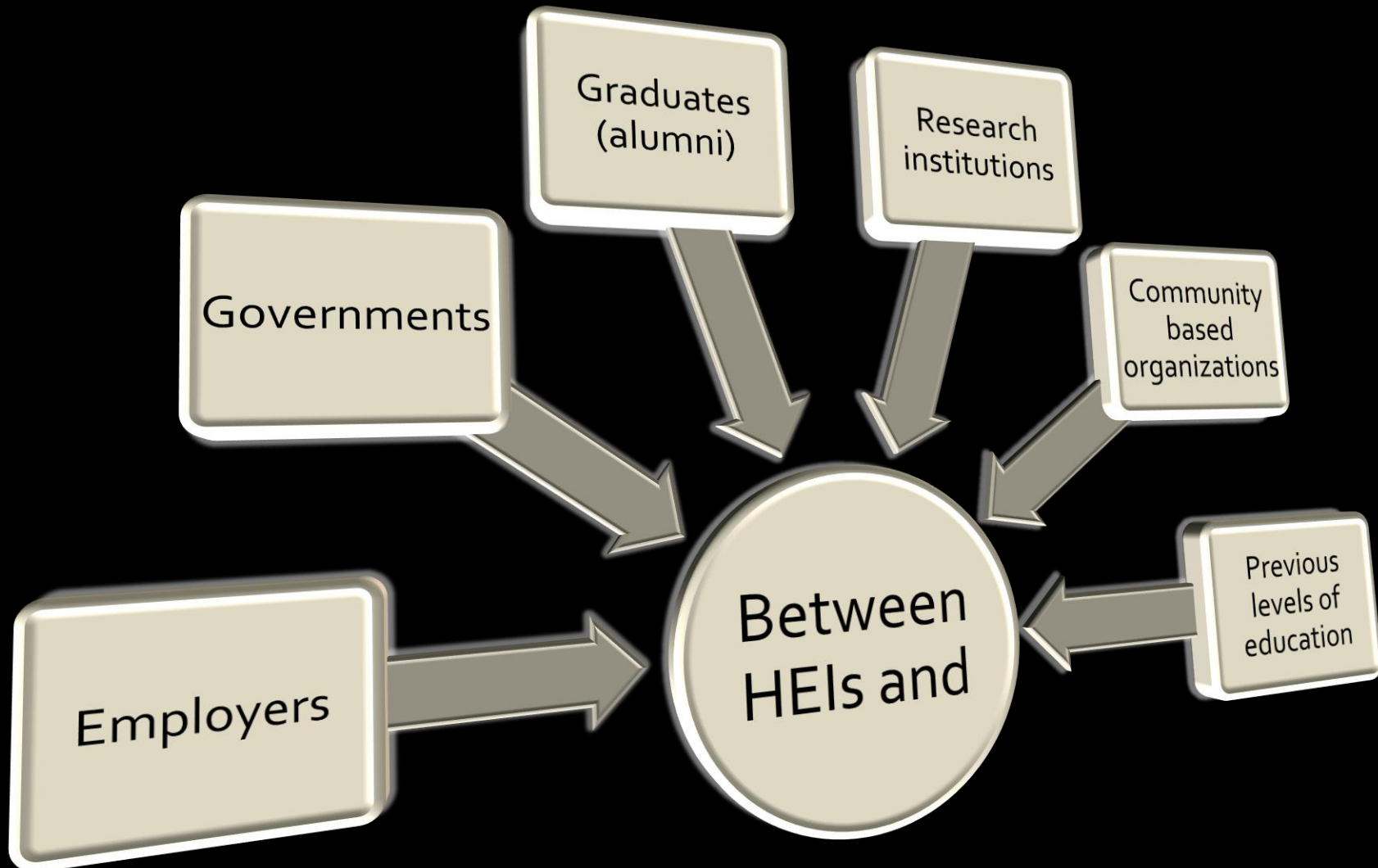
Our responsibility in HE

- In the 21st century, we're facing a massive change in the technologies and types of jobs available...We can't be certain that both productivity and employment will rise.
- We, as a society, need to make the commitment to guide our technologies responsibly and to capitalize on the prosperity we are creating, just as those who came before us did. That way we will ensure that AI technology creates opportunity for all, not just for a lucky few


Stephane Kasriel

Higher education does not always work as a system of connected actors.

Some disconnects



Other Disconnects

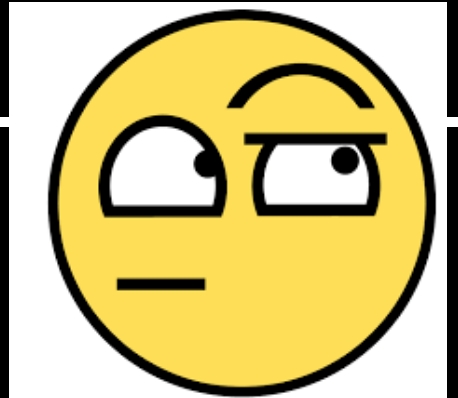


Among higher
education
institutions

Inside higher
education
institutions

Community at large...

*...skeptical, unconvinced,
exigent and impatient.*



Some newspapers' headlines

A Gift Unearths a Rift

University confirms rampant plagiarism

The need for more transparency in higher education

Confidence crisis: Who appoints the President?

Ethics Flap at a University

University Ends Illegal Job Requirement

Teaching Ethics in a Morally Compromised World

The Corrosion of Ethics in Higher Education

The End of College

A donor provided funds for an Endowed Chair...Now he uses it

Graduates ill prepared: Employers can't find skilled workers

Guidance on Stem Cells

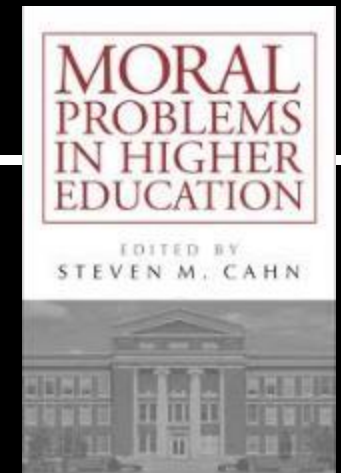
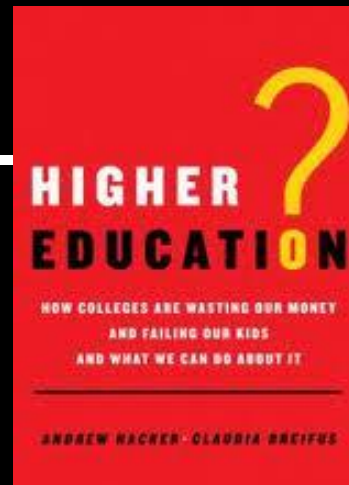
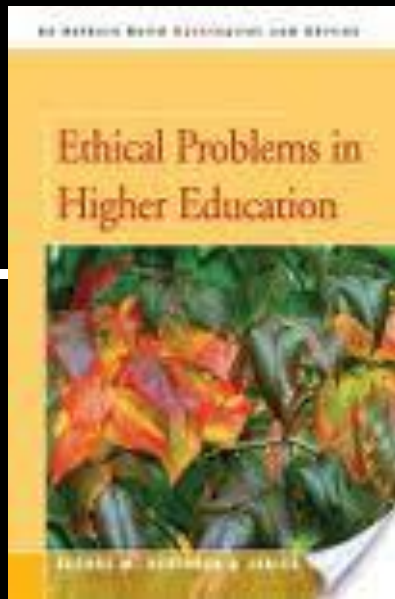
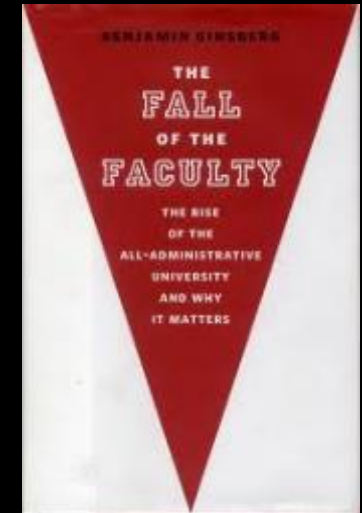
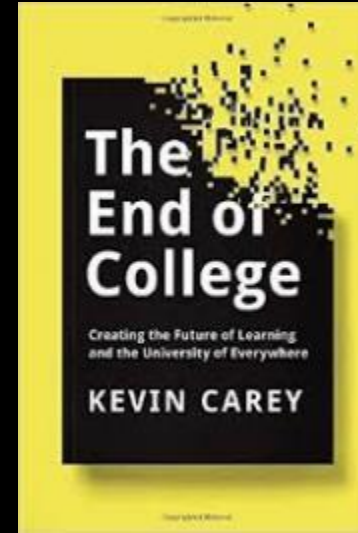
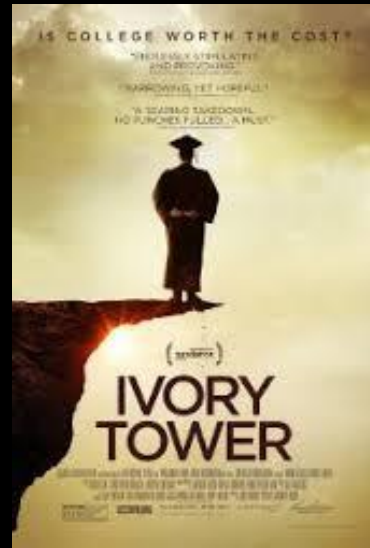
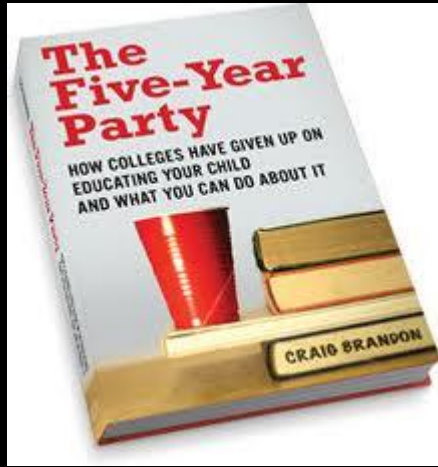
Freedom of research vs national security

Clamping Down on Corruption

University Adopts Conflicts Policy for Trustees



Some book (and movie) titles...



Changing social and individual perceptions about the University

Key Trend:

***Questioning about quality and
relevance of higher education***



SCHOOL

Skill Gaps

Integrity
 Reliability
 Teamwork
 Willingness to learn
 Entrepreneurship
 Self-discipline
 Self-motivated
 Flexibility
 Understand/take directions
 Empathy

Core Employability

Modern tools
 Knowledge Math/Sci/Engg
 Creativity
 Problem solving
 System design
 Contemporary issues
 Customer Service

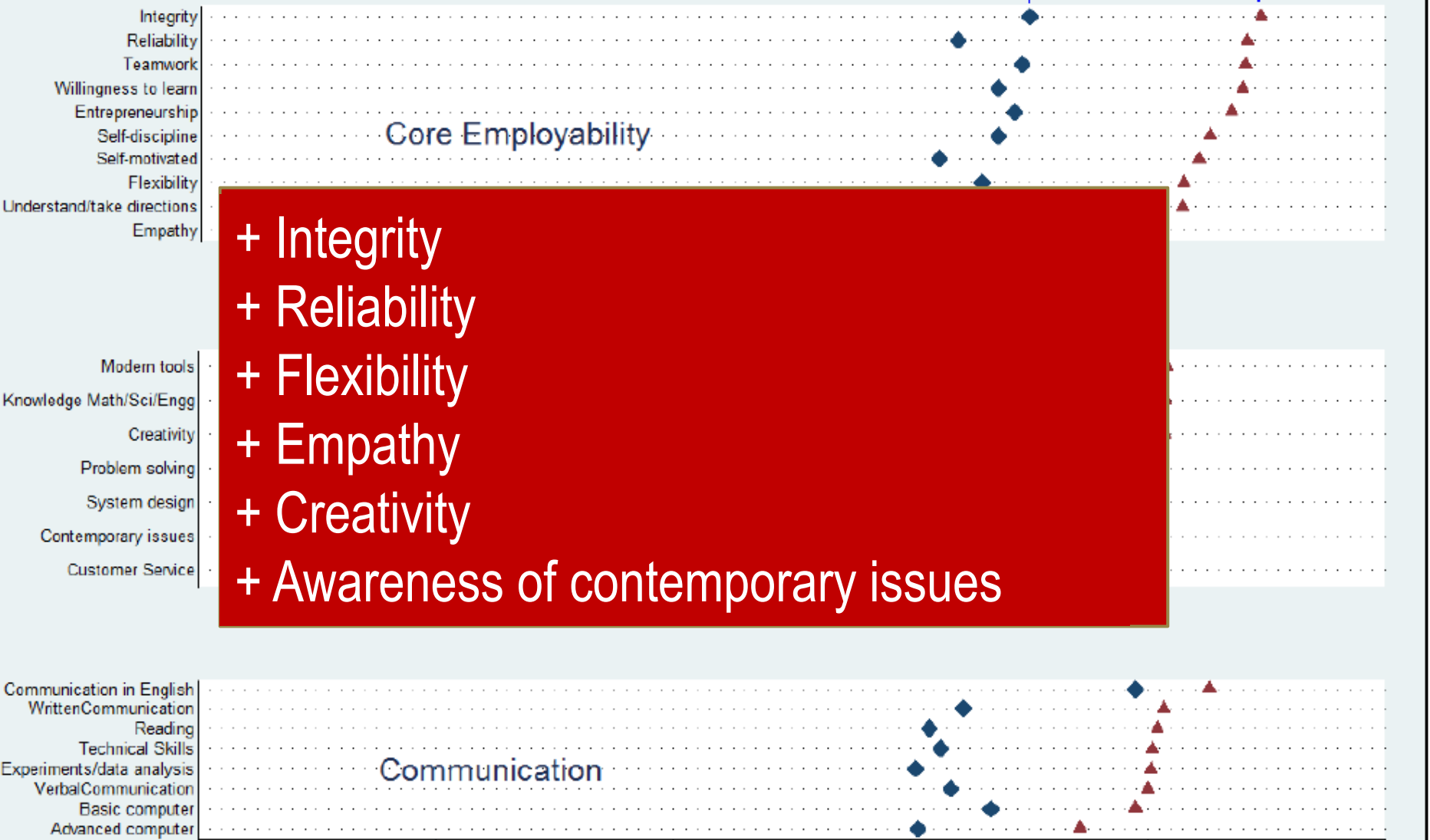
+ Integrity
 + Reliability
 + Flexibility
 + Empathy
 + Creativity
 + Awareness of contemporary issues

Communication in English
 Written Communication
 Reading
 Technical Skills
 Experiments/data analysis
 Verbal Communication
 Basic computer
 Advanced computer

Communication

0 Not at all Not Very Somewhat Very Extremely

◆ Satisfaction ▲ Importance



Pointers for action





The case of Malaysia



147, 151, 146, 133, 114



TOP 1% in the World
Malaysian Research Universities

Eleven subjects, Top 50 in the world.

Subject	Rank	Subject	Rank
Accounting	27	Business Administration	30
Business Administration	30	Business Law	30
Business Law	30	Business Studies	30
Business Studies	30	Education	30
Education	30	Health Sciences	30
Health Sciences	30	Information Systems	30
Information Systems	30	Law	30
Law	30	Life Sciences	30
Life Sciences	30	Mathematics	30
Mathematics	30	Physical Sciences	30
Physical Sciences	30	Psychology	30
Psychology	30	Social Sciences	30
Social Sciences	30	Teaching	30
Teaching	30	Visual Arts	30

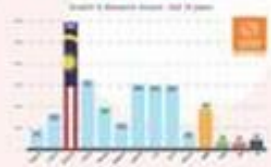
- 1. RWTH Aachen University of Technology, Germany
- 18. Nanyang Technological University, Singapore
- 60. Peking University
- 84. The University of Edinburgh
- 114. **Universiti Malaysia (UM)**
- 127. RWTH Aachen University of Technology
- 211. RWTH Aachen University
- 221. Delft University
- 229. **Universiti Putra Malaysia**
- 240. **Universiti Kebangsaan Malaysia**
- 242. Delft University
- 257. MIT University
- 258. **Universiti Teknologi Malaysia**
- 264. **Universiti Sains Malaysia**
- 271. RWTH Aachen University
- 294. MIT University of London
- 301. University of Cambridge, United Kingdom

TOP 50 UNDER 50

Year	Rank
2015	35
2016	36
2017	24
2018	23



RESEARCH



THE WORLD'S MOST INFLUENTIAL SCIENTIFIC MINDS 2014 - 2016



Cambridge Intersvarsity Debate Champion



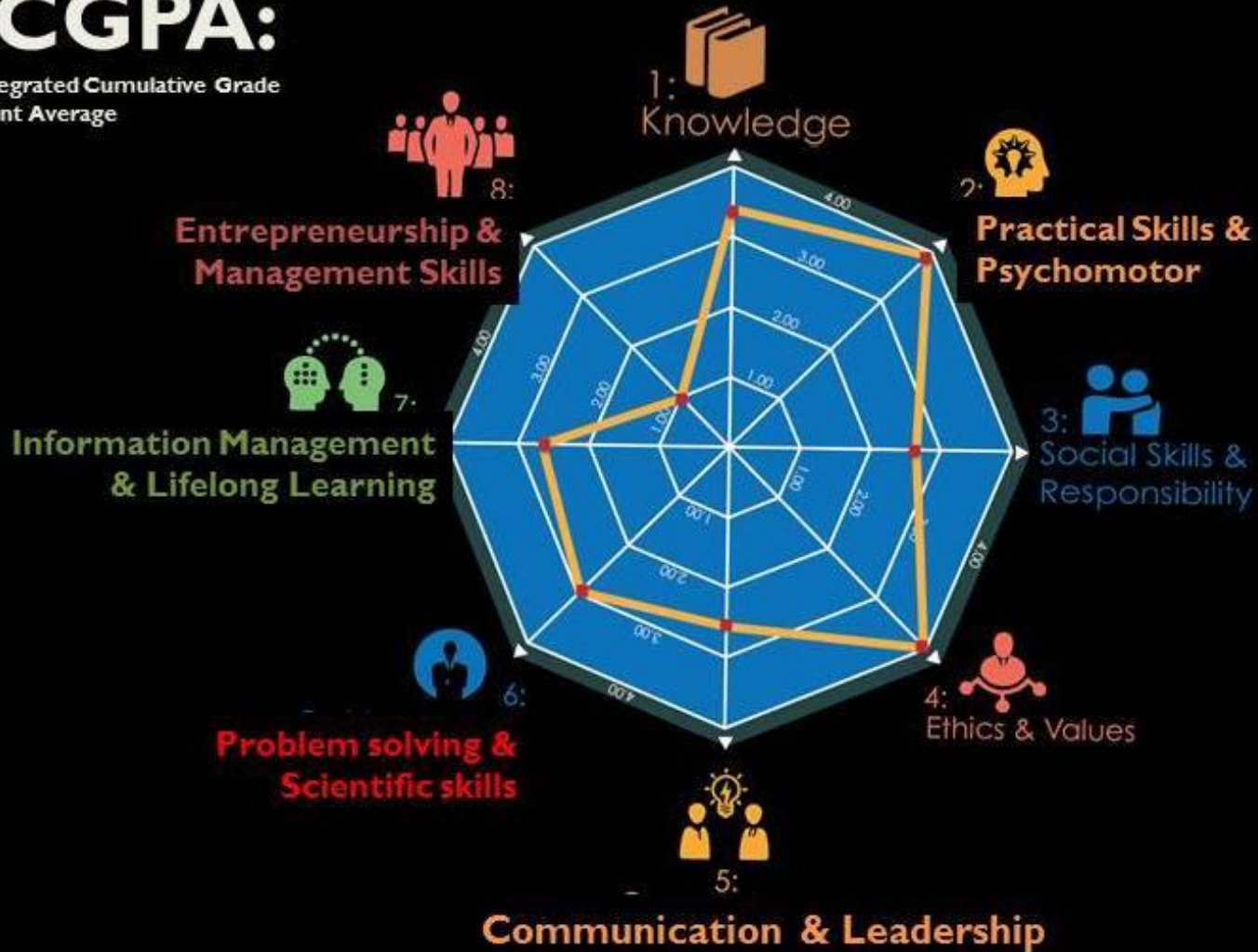
11 International University Branches in Malaysia



MOST AFFORDABLE CITY IN THE WORLD FOR STUDENTS

iCGPA:

Integrated Cumulative Grade Point Average



2u2i: 2 Years in University, 2 Years in Industry



Accreditation of Prior Experiential Learning



Unconventional
future student



Eizaz Azhar, school dropout. Now pursuing an MBA at Asia School of Business (a collaboration between MIT Sloan Management & the Malaysian Central Bank)

Governments must act..

...But national level changes
are not sufficient...

... Higher Education Institutions
need to embrace the change
themselves.





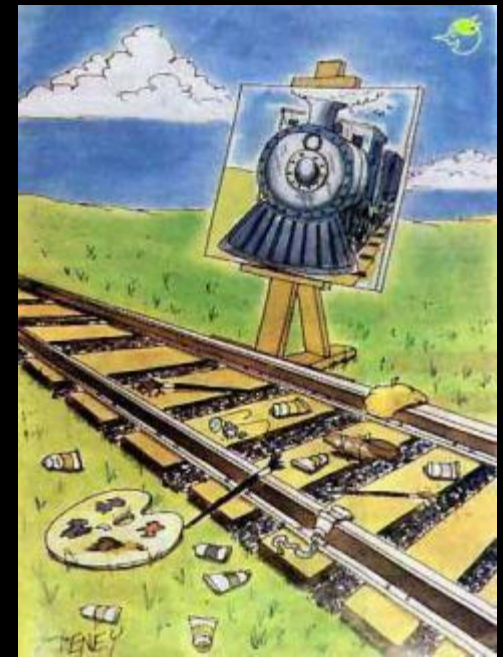
The Italian University in 1350



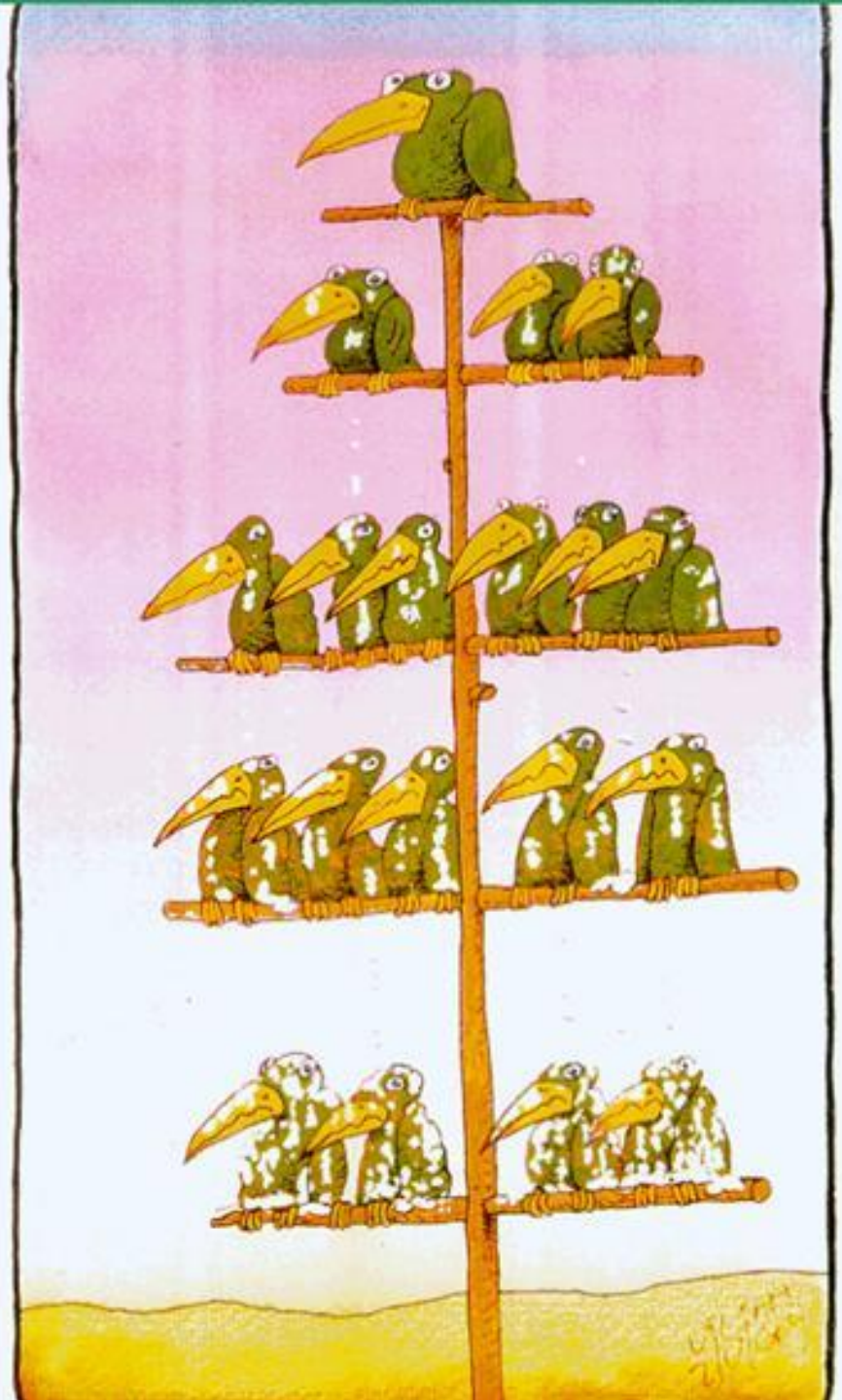
...and today's universities

The art of ambiguity

Continuing doing the same,
but waiting
different results



Who is responsible?



A paradox

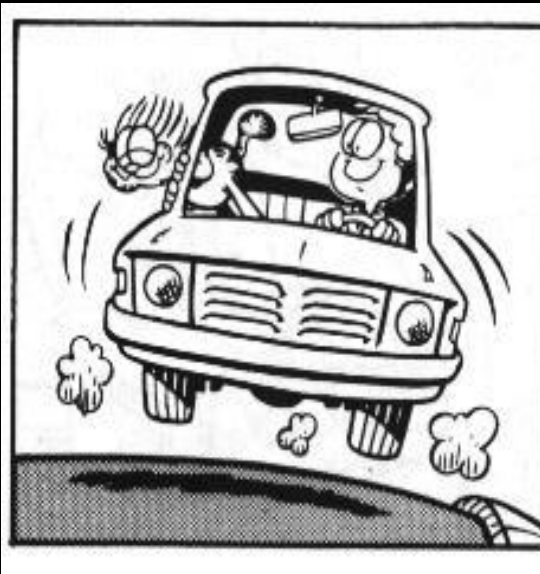


Higher education institutions are the best laboratory for social change

...but they have a tendency to inhibit their innovation capacity

There is no magic formula...

- What it may work in one case



...it is not necessarily the best solution in other cases

The role of Waqf in creating an enabling environment that connects teaching, research and public service...

...and actively involving the key constituents

Changing the paradigm

A good idea, but..



Too far from home



Too far from higher education



A priority for "tomorrow"

A critical need



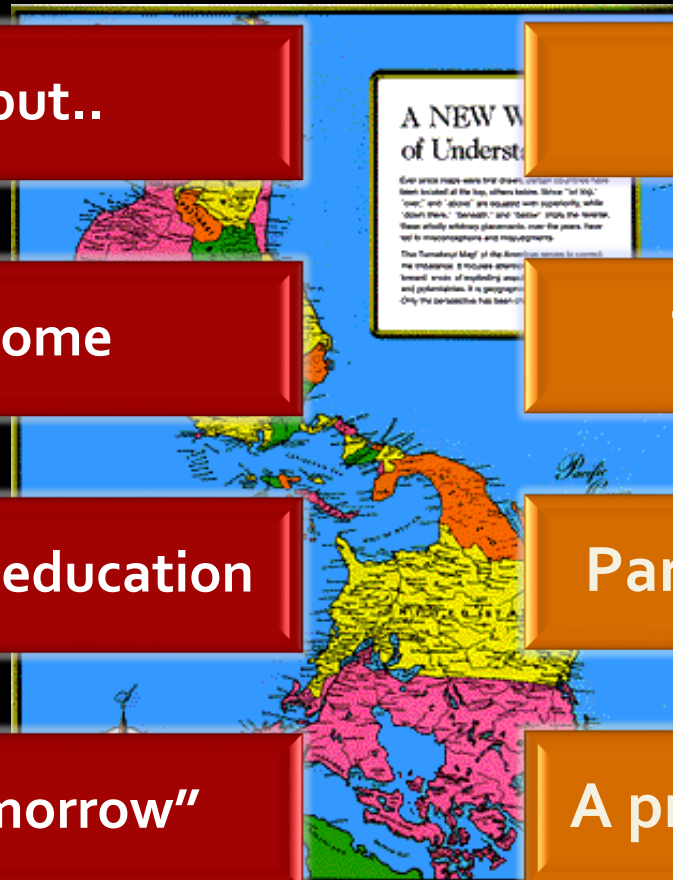
Too close to home



Part of higher education



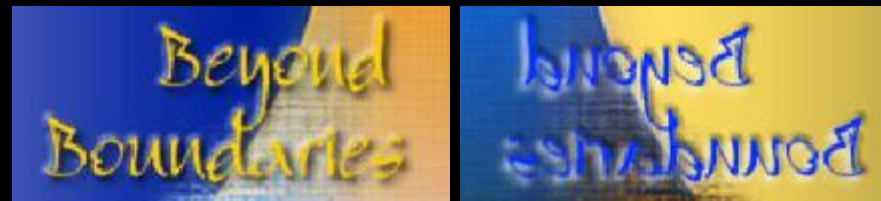
A priority for "yesterday"





“ The trouble with our times is that
the future is not what it used to be ”

Paul Valéry



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<http://www.worldbank.org/education/tertiary>

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