

**THE FUTURE OF HIGHER EDUCATION:  
QUALITY ASSURANCE AS A PROMOTER OF CHANGE**  
GLOBAL, EUROPEAN AND CROATIAN PERSPECTIVE

30 October 2018

Hotel Dubrovnik, Zagreb, Croatia

# Global changes in the world of higher education: Challenges and opportunities ahead



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**@fmarmole**

# The good news...

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

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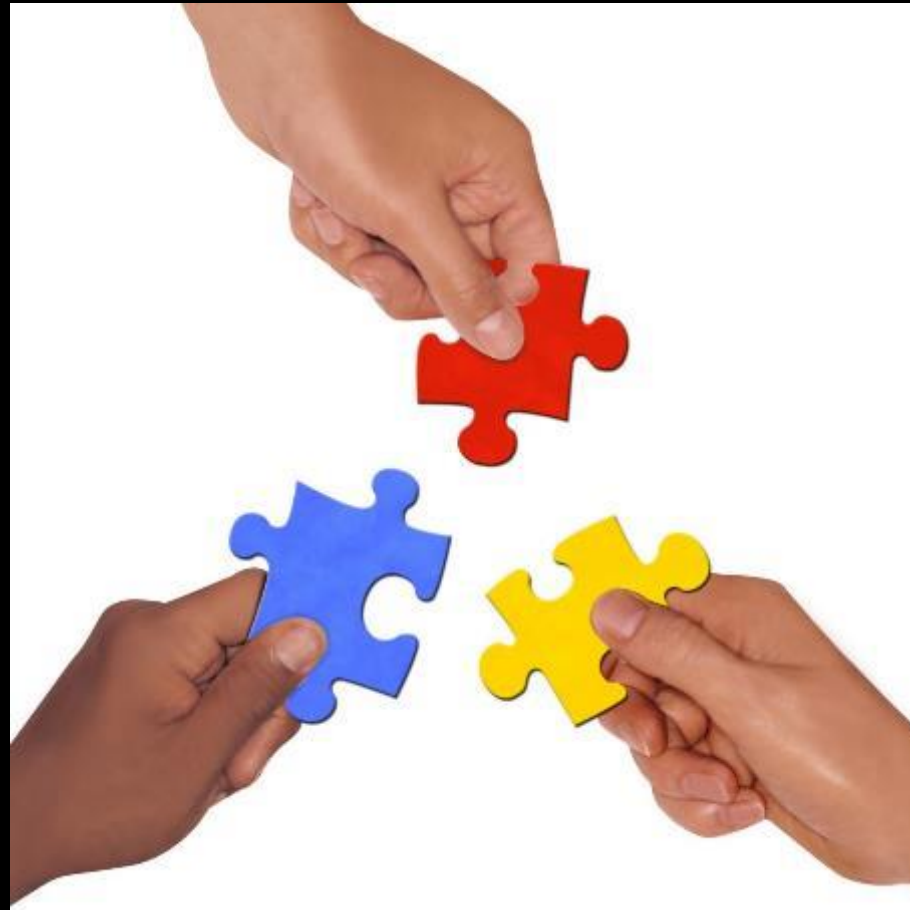
# The challenging news

*... we don't know how the current and future social, economic, political and technological shift will impact higher education (and its internationalization)*

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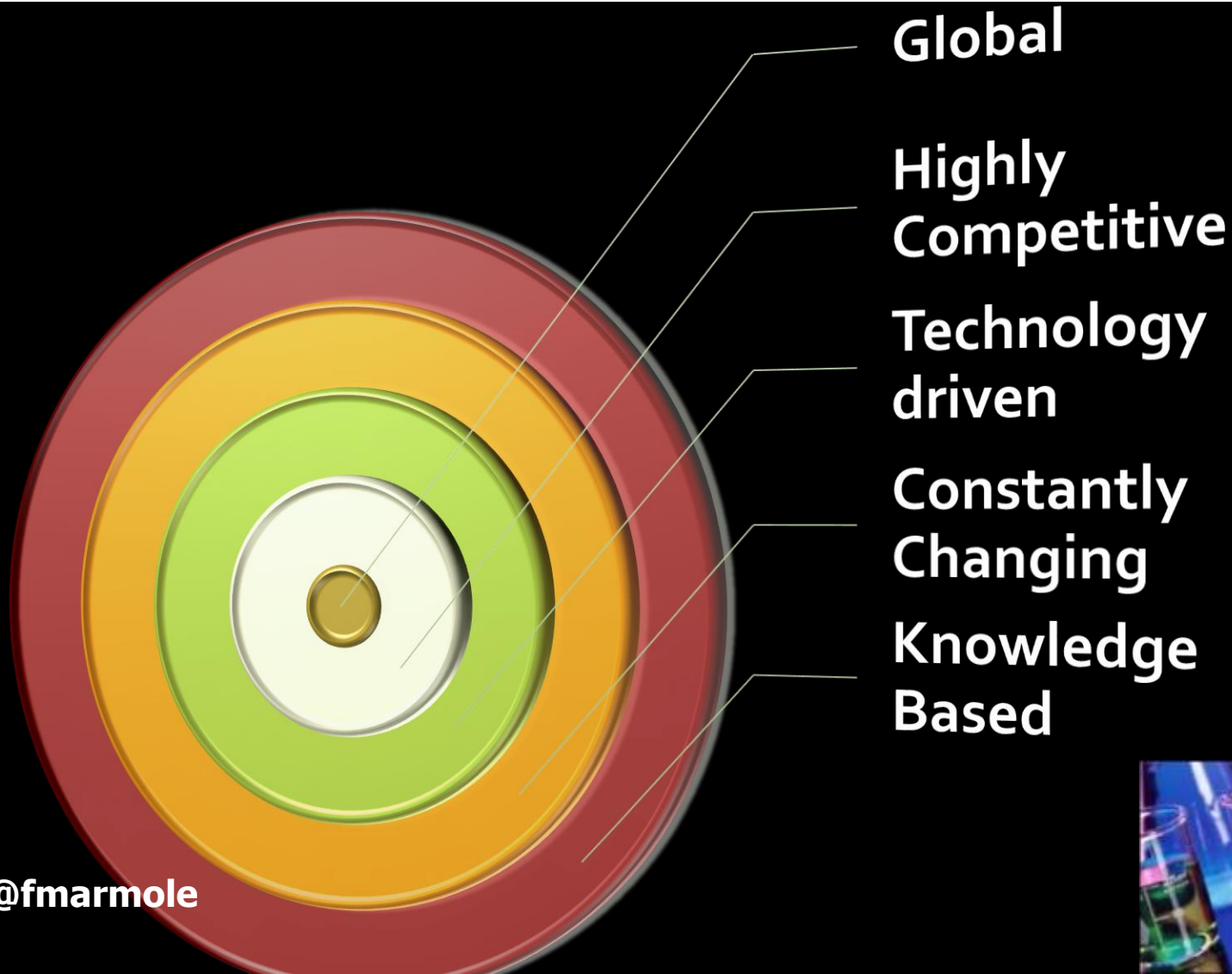
...and sometimes it looks like not too many people care about it

# Towards an increasingly interdependent world





# A new economy and society



# A globalized economy



- Made in The Netherlands
- With ingredients from Morocco.
- Distributed by a Chinese company
- For sale in Delhi.

## Mexican Salsa

# Towards an increasingly fascinating world





# Towards an increasingly interconnected world



# Towards an increasingly turbulent world



“A new reality...”





...to be seen with different lenses”



# Why does it matter?

Sure glad the hole isn't at our end.





Who told us that the university  
shouldn't and can't change?



# A reality check...

Limited employment growth

Missed opportunity to spur growth and welfare

Tension exacerbated by demographic and other social pressures

The rise of "nationalism" and nativism as the opposite of internationalism

Significant environmental concerns

The challenge of disinformation, misinformation and malinformation

Questioning about legitimacy of institutions

# A reality check...

Unimaginable progress

Extreme poverty diminishing

Unthinkable innovation and discoveries

The world In the midst of the 4IR

Higher Education: the best investment

# Economic returns by educational level and region\*

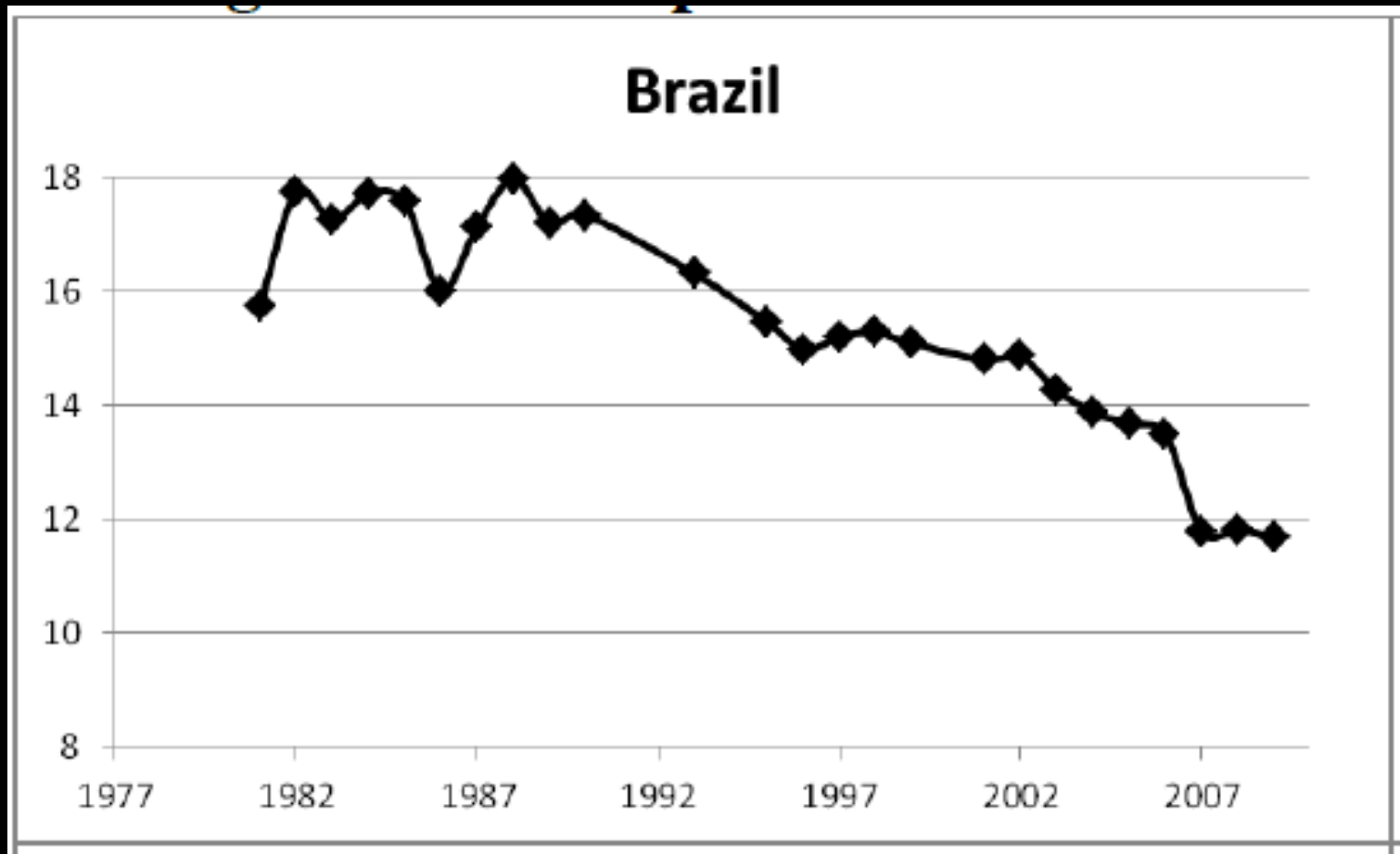
Region	Primary	Secondary	<b>Tertiary</b>	GDP/pc (PPP 2005)	N
World	10.3	6.9	<b>16.8</b>	6,719	74
Middle East and North Africa	9.4	3.5	8.9	3,645	7
South Asia	9.6	6.3	18.4	2,626	4
Eastern and Central Europe	8.3	4.0	<b>10.1</b>	6,630	7
High Income Economies	4.8	5.3	11.0	31,748	6
East Asia and Pacific	11.0	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

\* *Latest available year between 2000-2011*

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

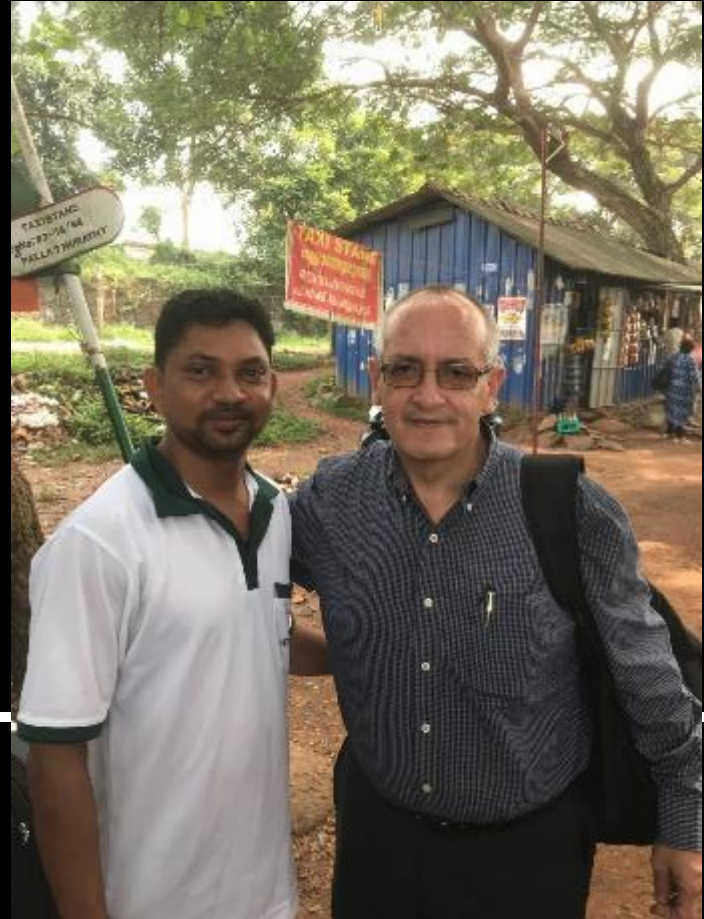


# However... returns are declining



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

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



The case of Angelo

**And it is much more than  
just money**

# Higher Education as a key enabler of social development

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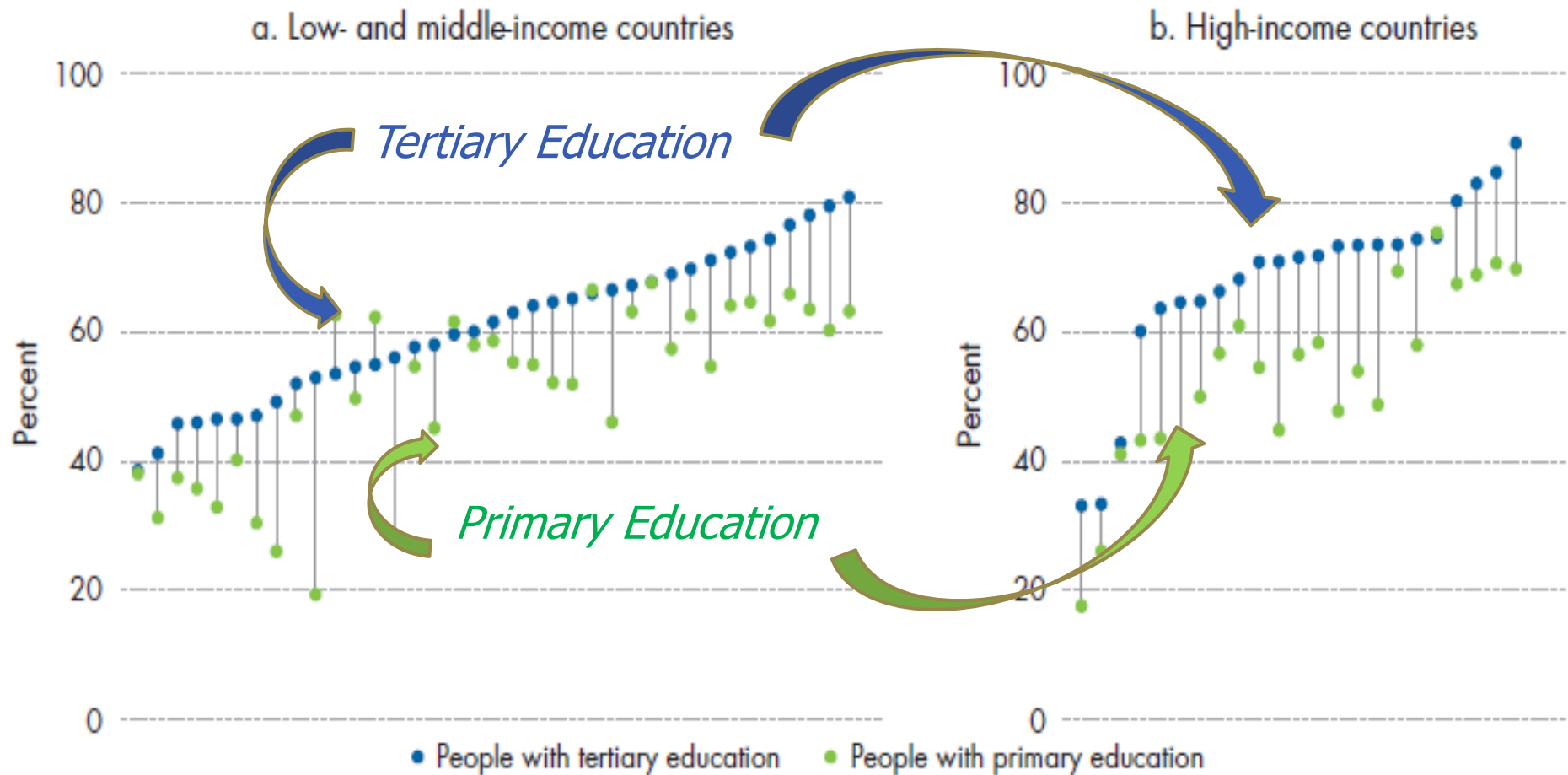


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# Percentage of population that believes it is “absolutely important to live in a democracy,” by country and level of education



Source: WDR 2018 team, using data from World Values Survey (World Values Survey Association 2015). Data at [http://bit.do/WDR2018-Fig\\_1-3](http://bit.do/WDR2018-Fig_1-3).

## 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](http://www.thenationshealth.org/sdoh)

# Higher education as the last place in the formal education system to build tolerance and “otherness” awareness



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

A renewed role for higher education:

*Towards globally-minded and internationally abled, but locally-engaged citizens*



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A renewed role for higher education:

*But also higher education institutions as role model local and global “corporate citizens”*

# A very different current (and future) context





Dynamics of  
globalization

New social  
challenges



The changing world  
of work

Transformation of  
childhood and  
families



ICT: The next  
generation



# Was this a true prediction?

“Universities won’t survive...higher education is in deep crisis...The college campus won’t survive as a residential institution. Today’s [college] buildings are hopelessly unsuited and totally unneeded”

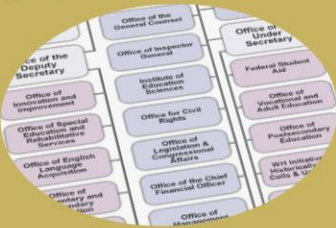


*Peter Drucker, 1997*

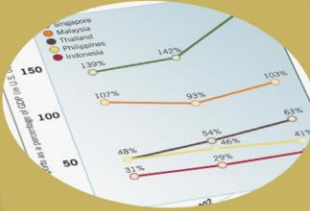
*...or it has been just an exaggeration?*



# To begin with...



## An increasingly complex sector



**Significant  
expected  
growth, but...**



**A sector under a lot of pressure for a more effective response**



**Societies want solutions.**



# WB: Some key challenges in HE



# What are the top issues in higher education in your region?

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Quality Assurance/Governance

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Employability of Graduates

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Financing

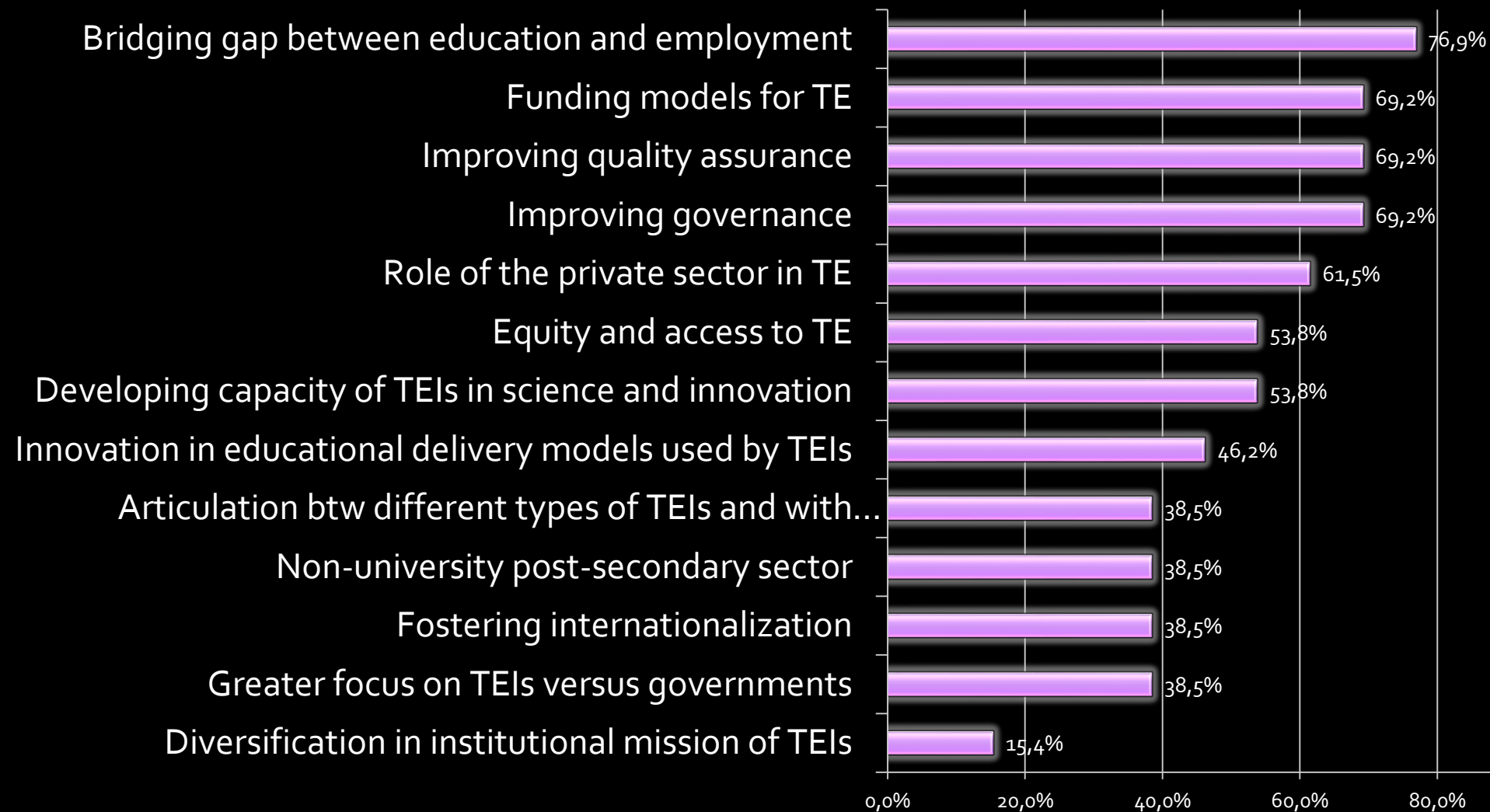
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Diversification of HE. Emphasis on TVET

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Equity and Access, and Innovation

# What priorities will be emphasized in higher education in the next 5 years? \*



\* *Multiple responses*

What do we know?  
*And what we don't know?*

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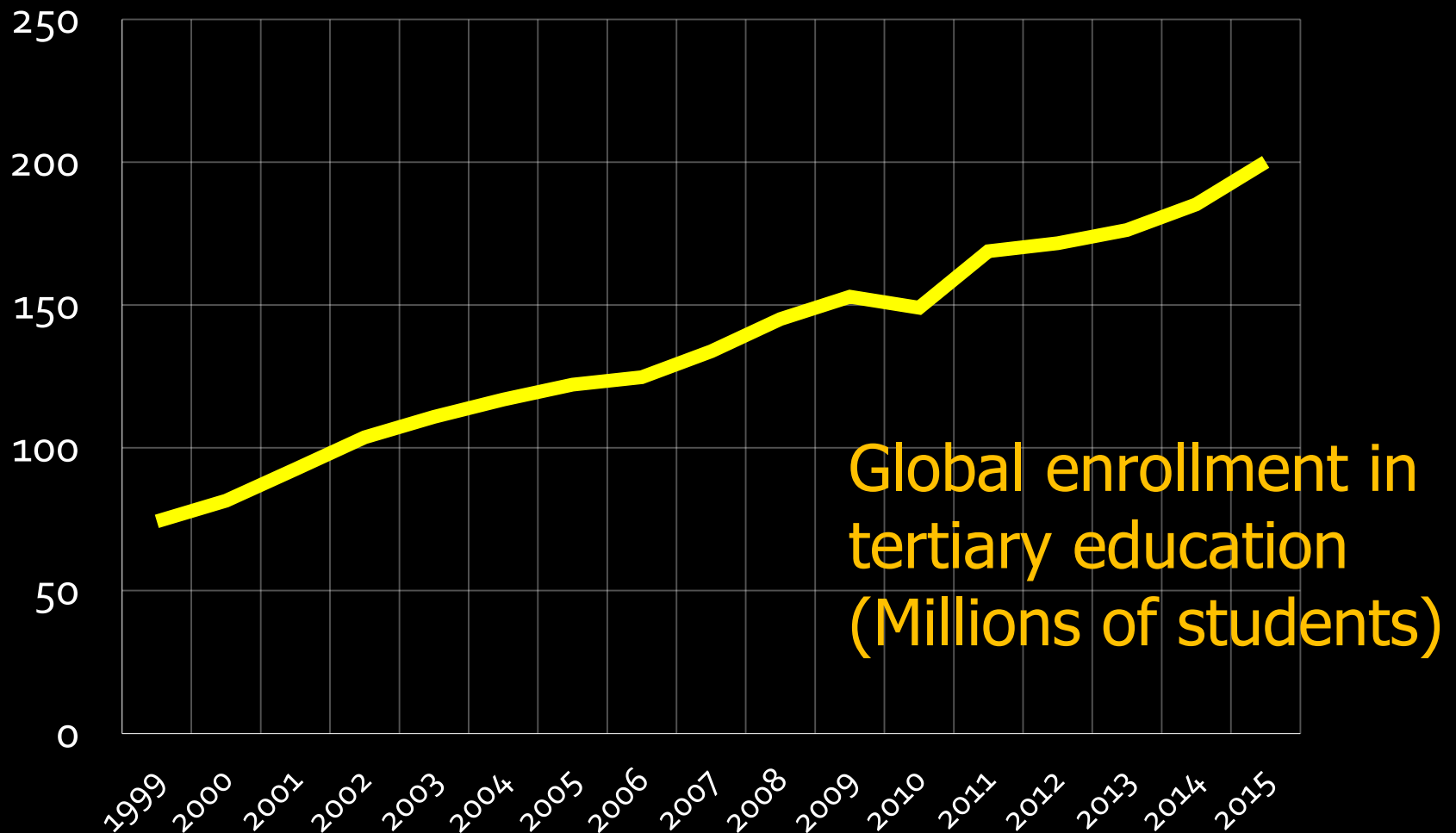
# Key Trend 1:

*Uneven expansion*

# A fact...

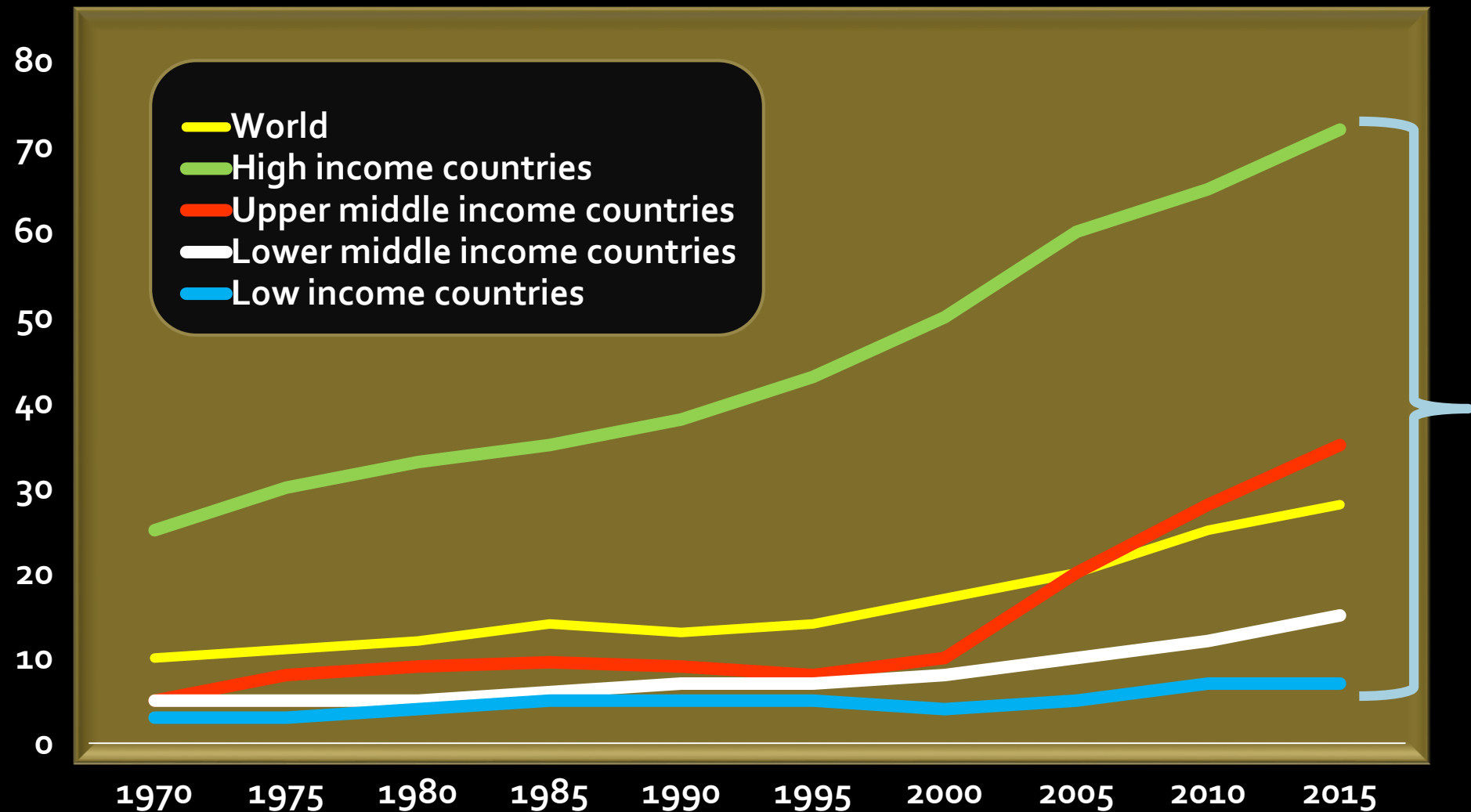
## Significant growth in higher education

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



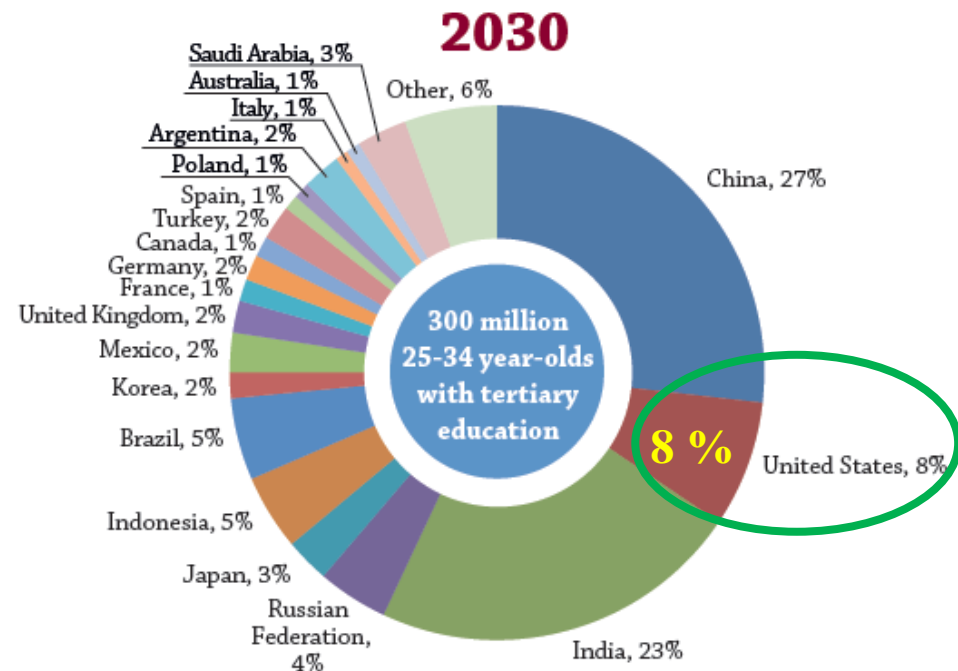
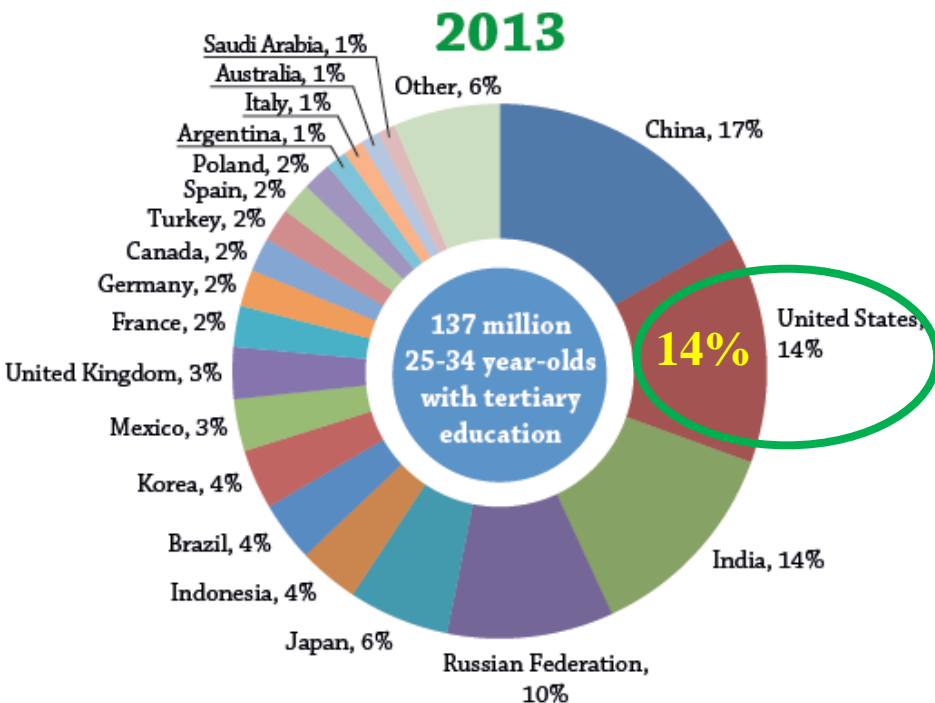


# Tertiary education gross enrollment ratio, by country income group. 1970-2015. %



# The shifting distribution of the global stock of people with tertiary education

## Global distribution of tertiary educated 25-34 y-olds in 2013 and 2030

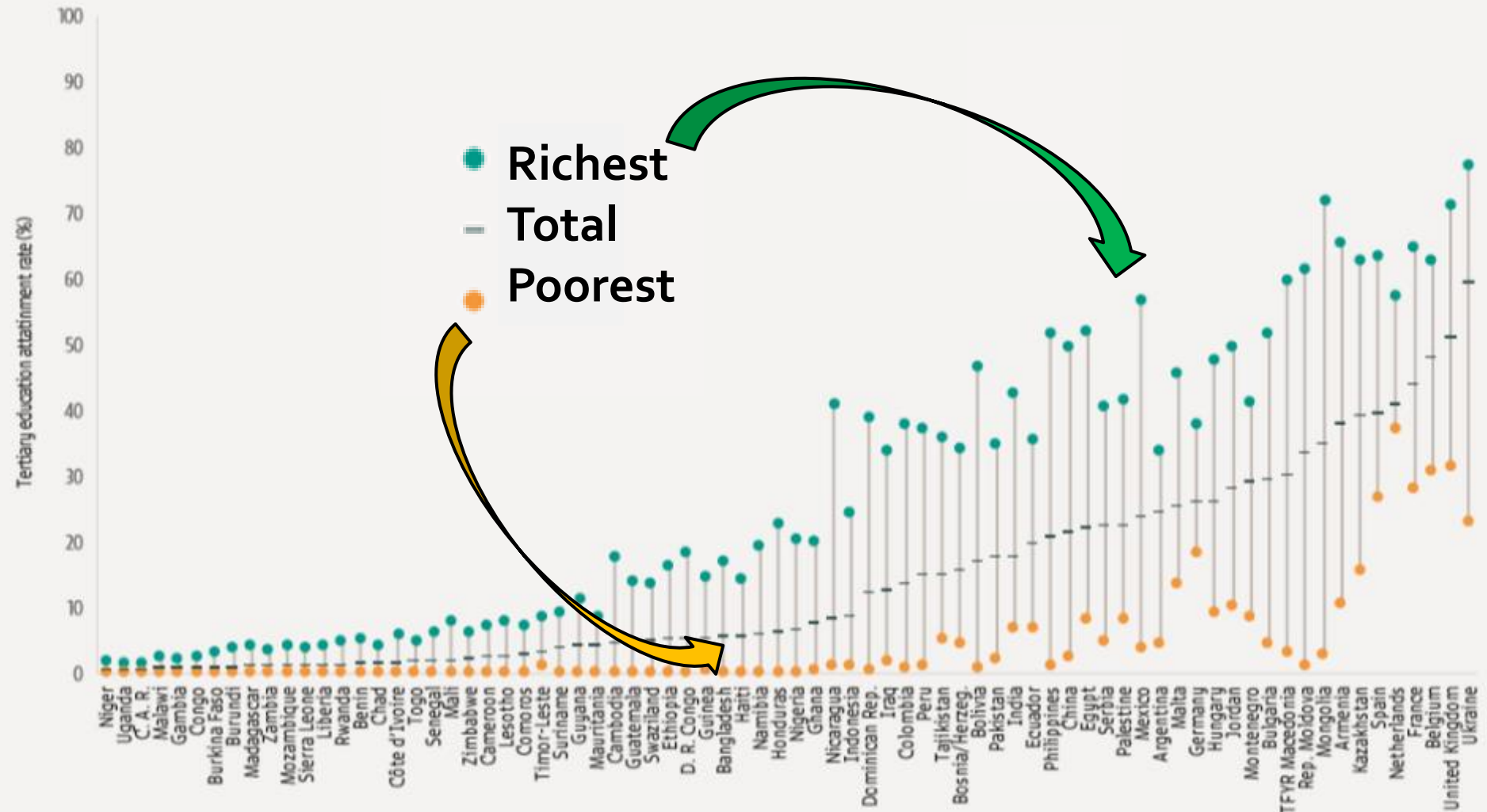


# But, there is still a significant disparity in access

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



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



# Relevant Facts



# Implications of the global growth in HE

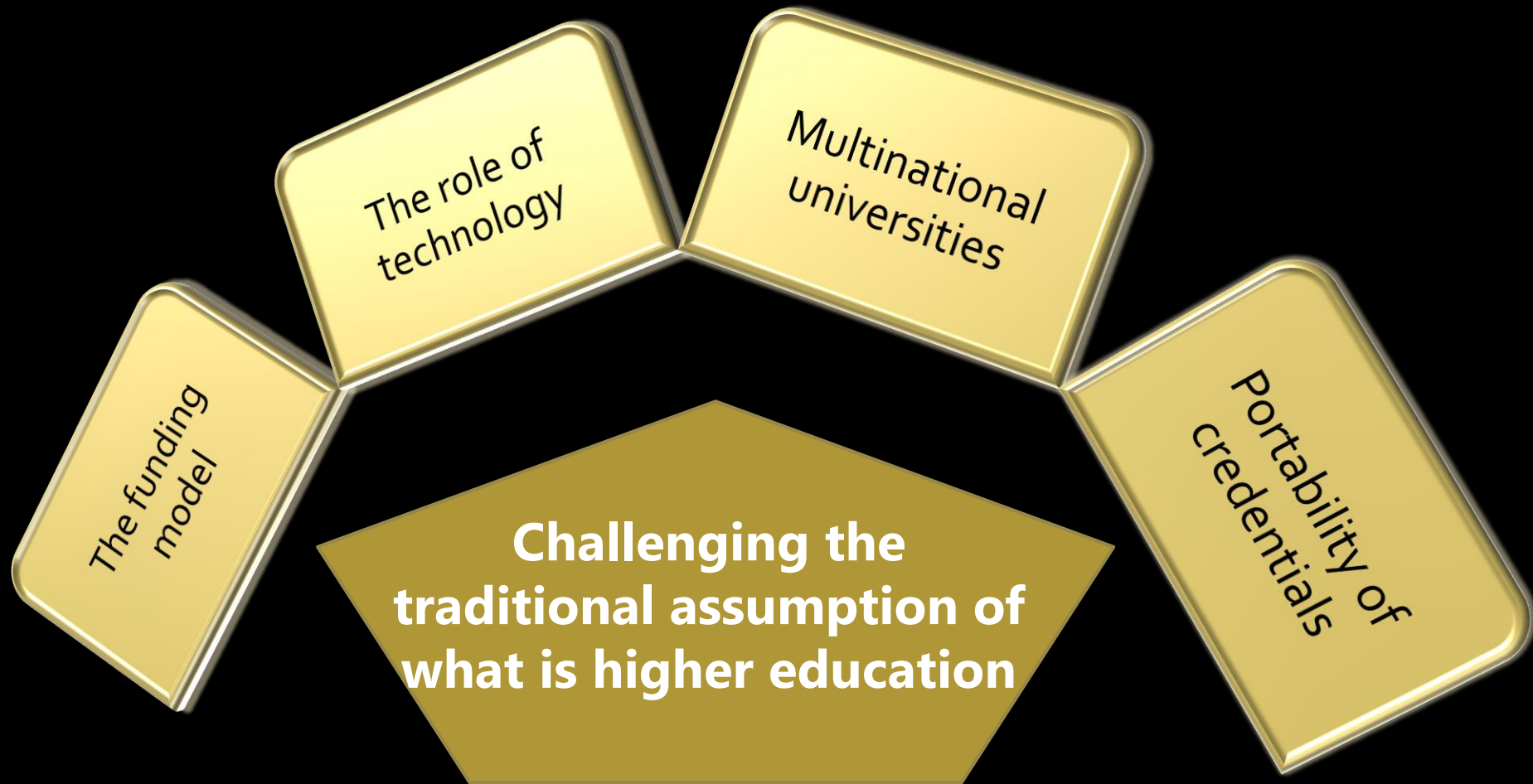
Now the low and middle-income countries have the greatest share of the worldwide higher education enrollment.

It is in the developing economies where the future profile of global higher education will be defined.

Worldwide, higher education will transition from an elitist approach towards a flexible access model.



# 2025: Dramatic diversification of modalities/providers of education





# Expanding HE beyond national boundaries

## International branch campus facts



**76**  
countries hosted  
international branch  
campuses in 2015  
(10% higher than in 2011)

**45%**  
Branch campuses  
under development  
worldwide being  
planned by U.S. and  
U.K.-based institutions

**73%**  
Portion of total international branch  
campuses run by institutions in the U.S.,  
U.K., France, Russia or Australia

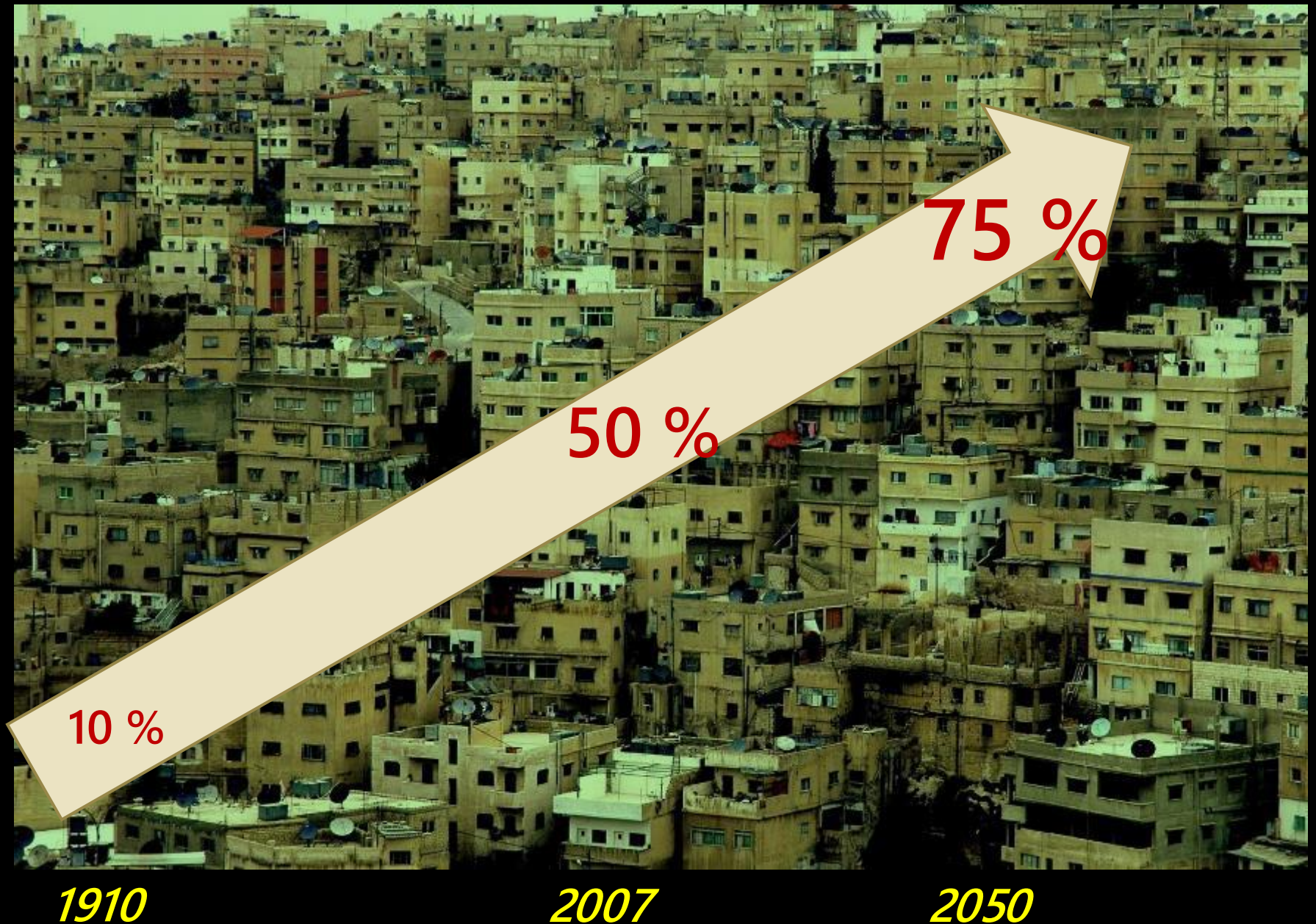
Source: "International Branch Campuses - Trends and Developments 2016," Observatory on Borderless Higher Education; <http://ubmag.me/branchcampus>

Increased pressure for access to higher education.... but not for many years, and not everywhere



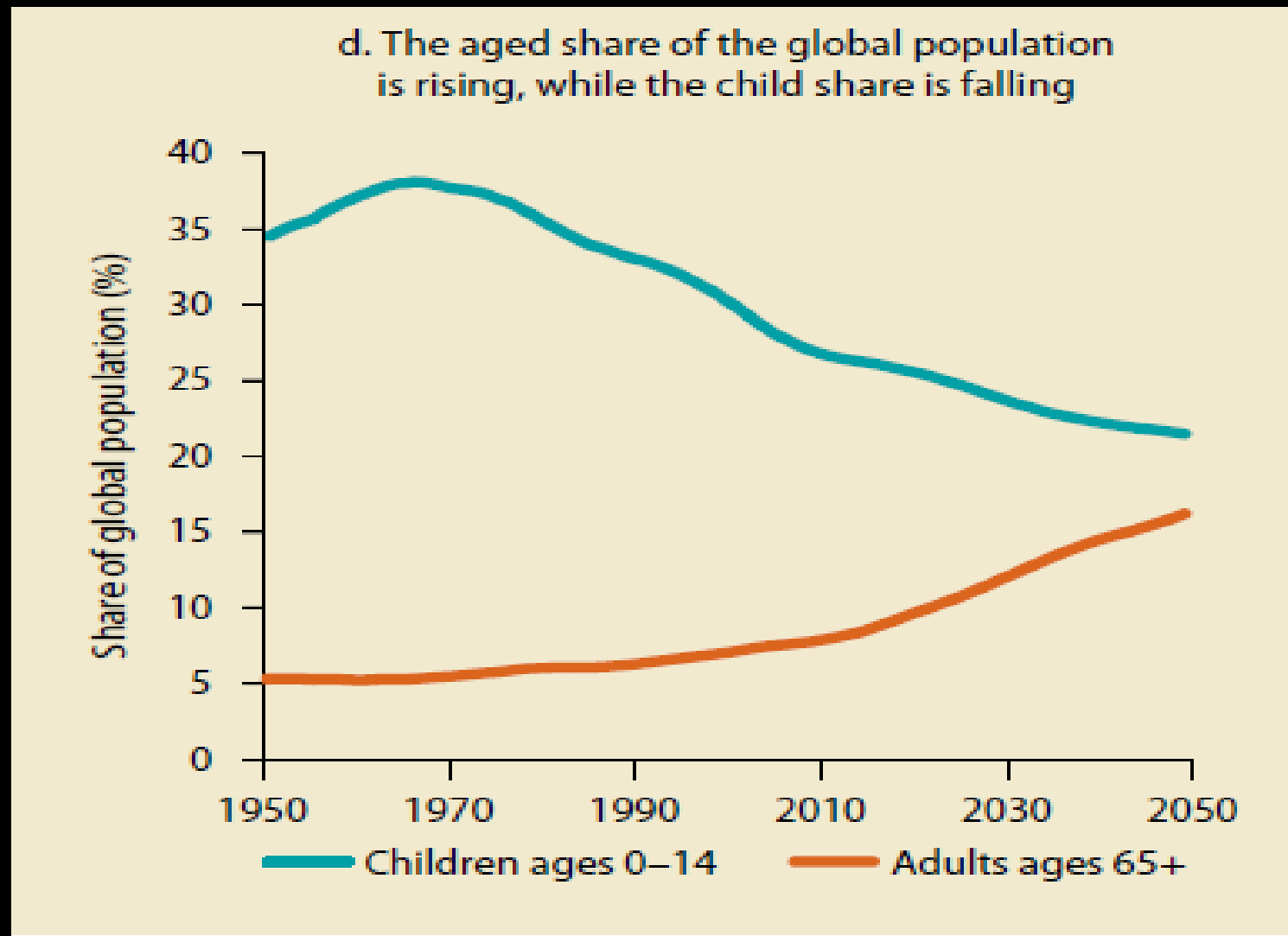


# WORLD POPULATION LIVING IN CITIES

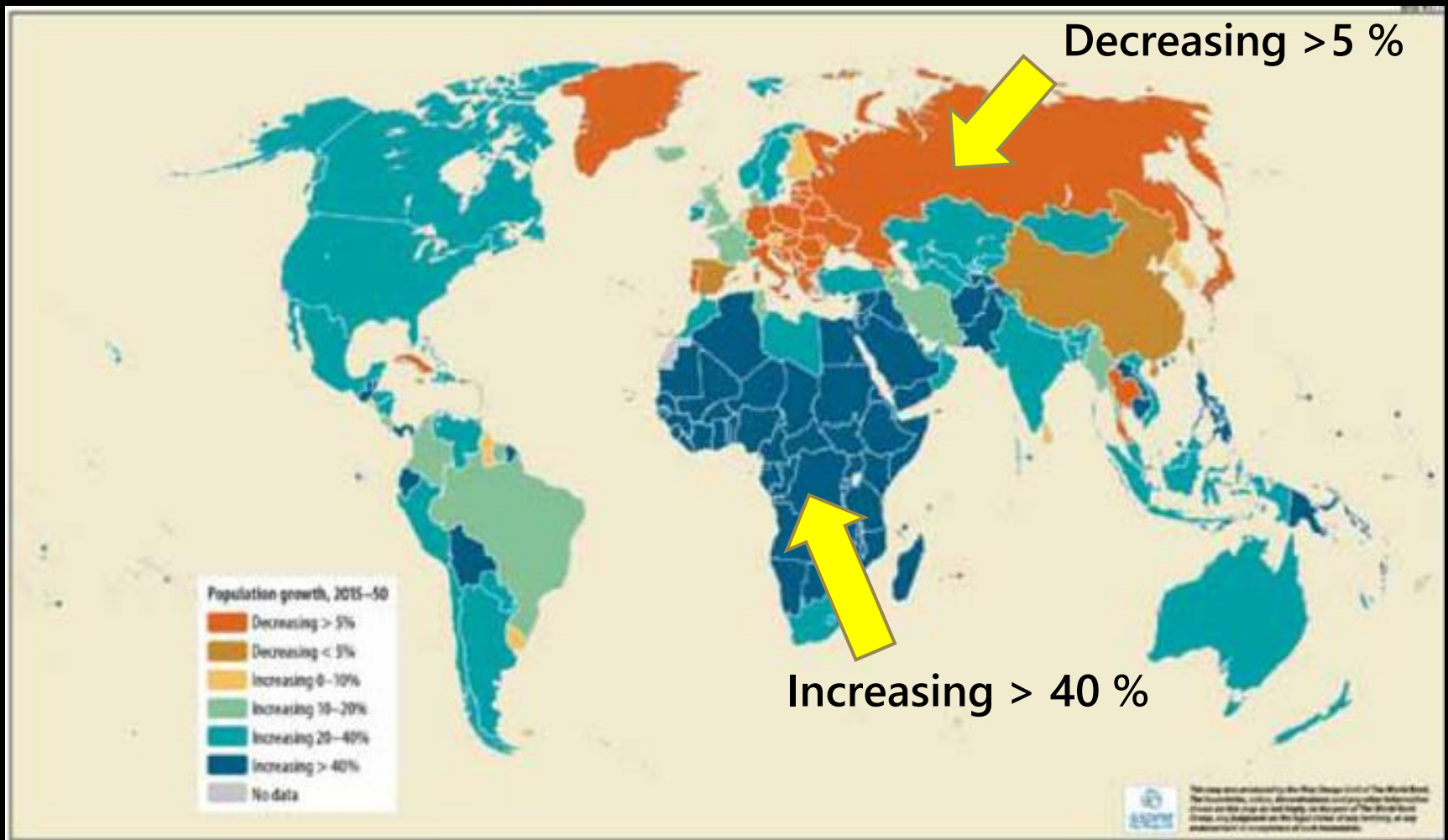


# WB: World Development Report

## 2015



# Population Growth 2015-2050



Source: World Bank. World Development Report. 2015



# The case of Italy





# Ostana, Italy in the Washington Post

WorldViews

## For the first time in 28 years, a baby has been born in this Italian town



February 1, 2016

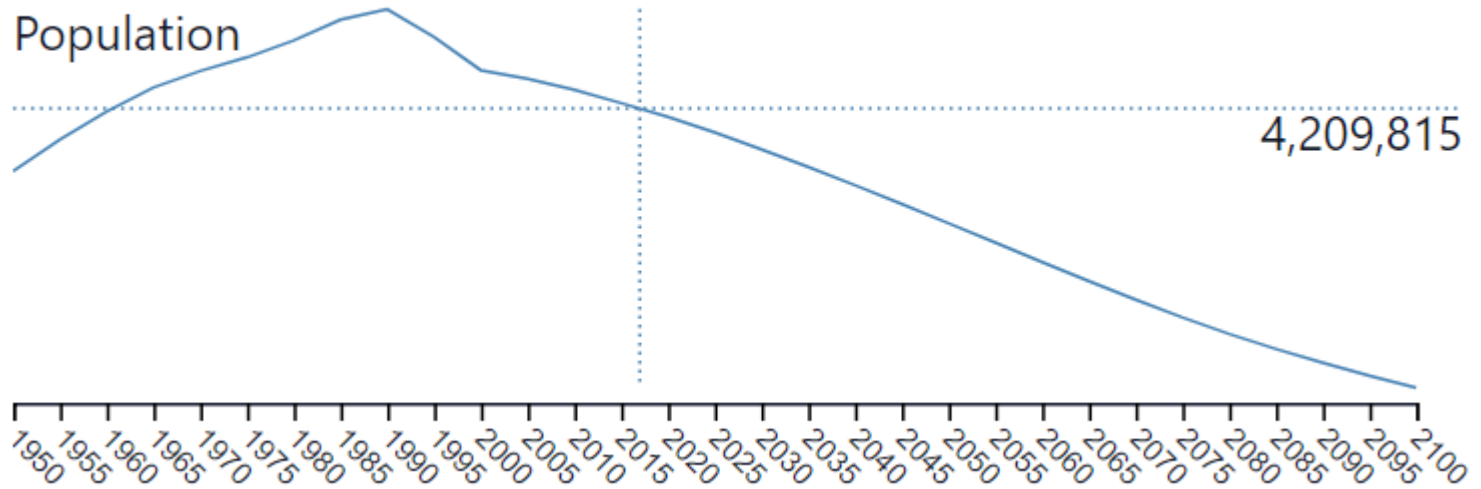
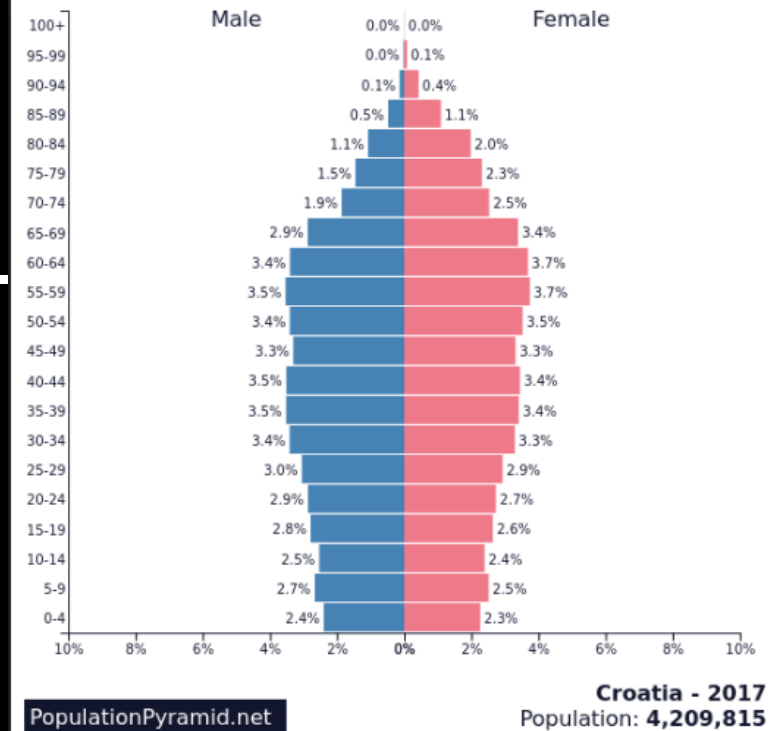
<https://www.washingtonpost.com/news/worldviews/wp/2016/02/01/for-the-first-time-in-28-years-a-baby-has-been-born-in-this-italian-town/>

# News from Japan (2015)...

- The population of higher education students in Japan is forecast to decline by about a third over the next 15 years, from 650,000 students in 2018 to 480,000 in 2031.
- Competition among universities has predictably increased as the applicant pool has begun to shrink and roughly 40% of the country's private universities were operating below capacity as of 2014.

# The case of Croatia

It is expected that by 2020, the average age in Croatia will be 44 yrs



In contrast...

Nearly a half of the  
population in Africa is under  
twenty



# The case of Kenya

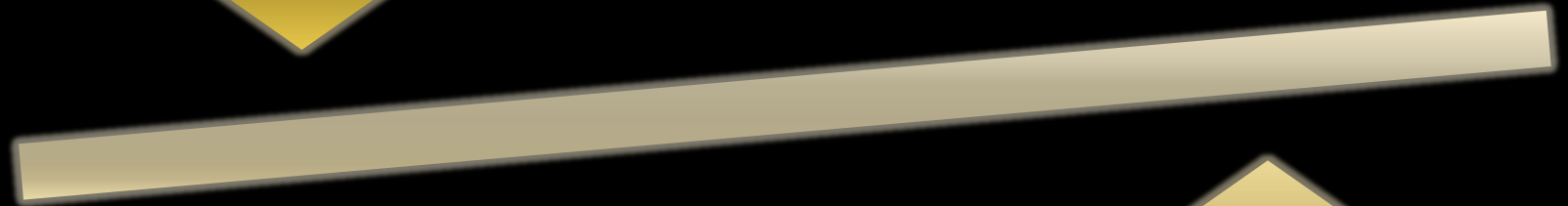
- At present, 26 million Kenyans —**more than half of the country's population**— is under the age of 25.
- By 2030 two thirds of Kenyans are projected to fall into the under 25 cohort.



# 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



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# A furious competition for talent



Australia

720,000 onshore enrolments by 2025



Canada

450,000 international students by 2022



France

Increase international student intake by 20% (amounting to 470,000 based on current levels)



Germany

350,000 inbound internationally mobile students by 2020



Japan

300,000 international students by 2020



New Zealand

143,000 international students by 2025



Ireland

44,000 foreign students by 2019/20

# A furious competition for talent



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720,000 onshore enrolments by 2025



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China

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Japan

300,000 international students by 2020



New Zealand

143,000 international students by 2025



Taiwan

58,000 foreign students by 2019



Malaysia

250,000 international students by 2025



South Korea

200,000 foreign students by 2023



Ireland

44,000 foreign students by 2019/20

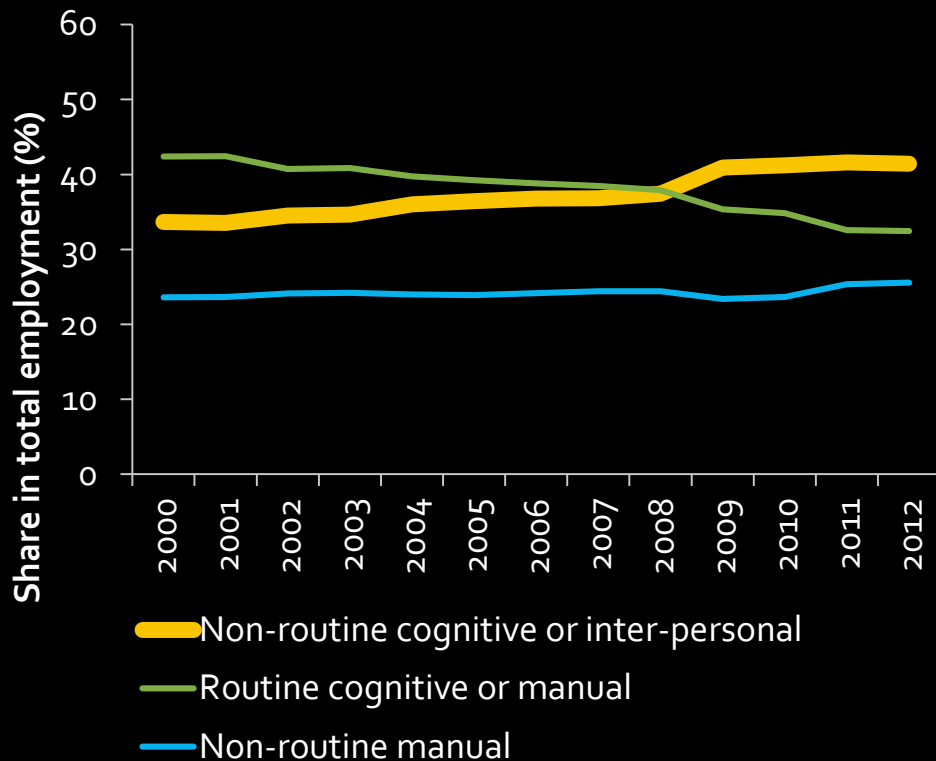
# However, it is a contested terrain



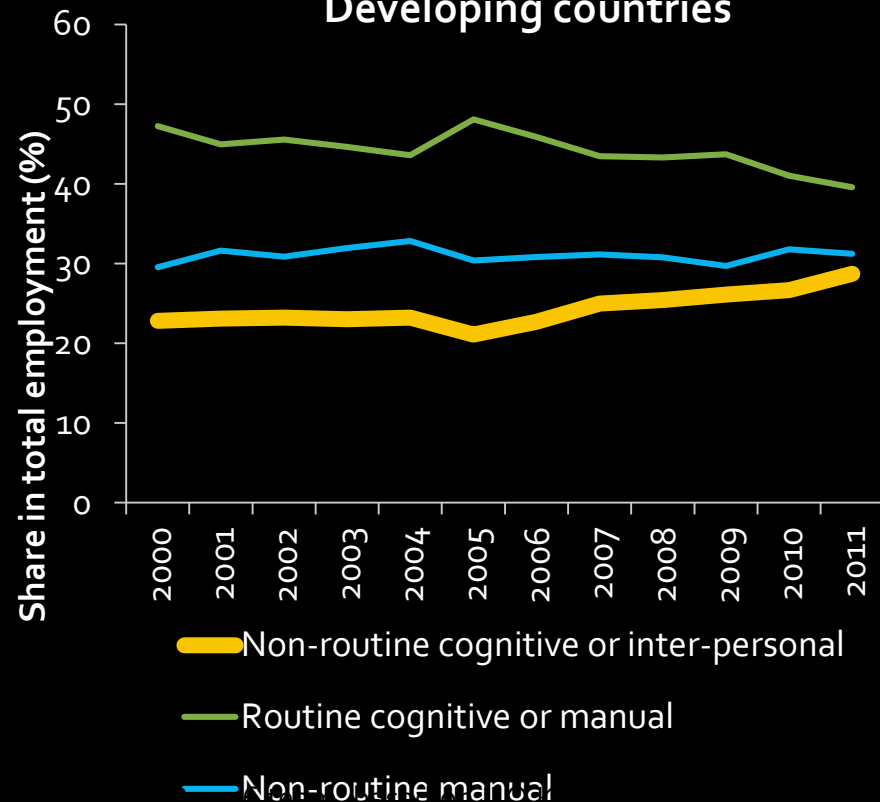
# Globally, skills demand is shifting towards “New Economy Skills” (non-routine cognitive and interpersonal skills)

Employment Composition (simple cross country average by type of occupation  
(2000-2012)

## OECD countries



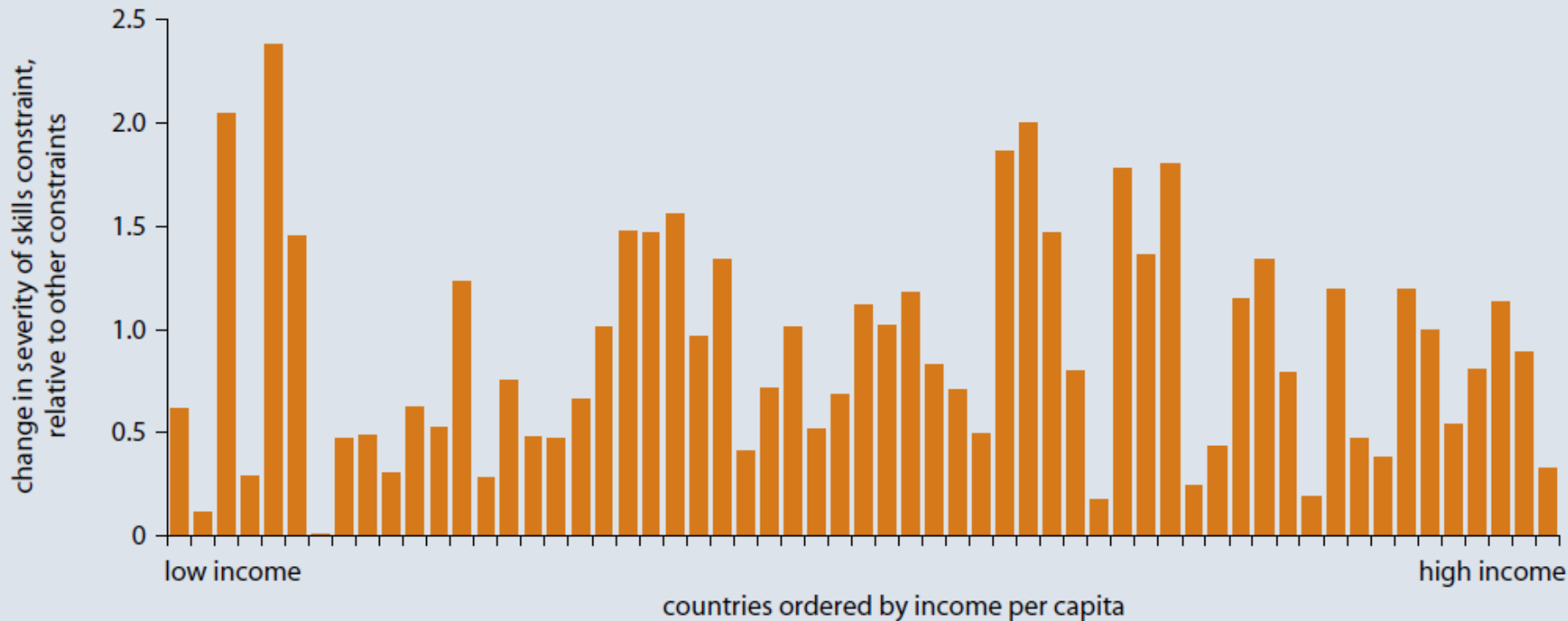
## Developing countries



Source: WDR 2016 team, based on ILO KILM data. Skills classification follows Autor (2014).



# Relative to other obstacles, skills have become a more severe constraint to business



Source: World Development Report 2013



# A mismatch of talent

## THE WORLD TODAY

A mismatch of talent is challenging companies and countries alike, leading to a lack of prospects for families, missed innovation and a shortfall of growth.

**200**  
million  
unemployed

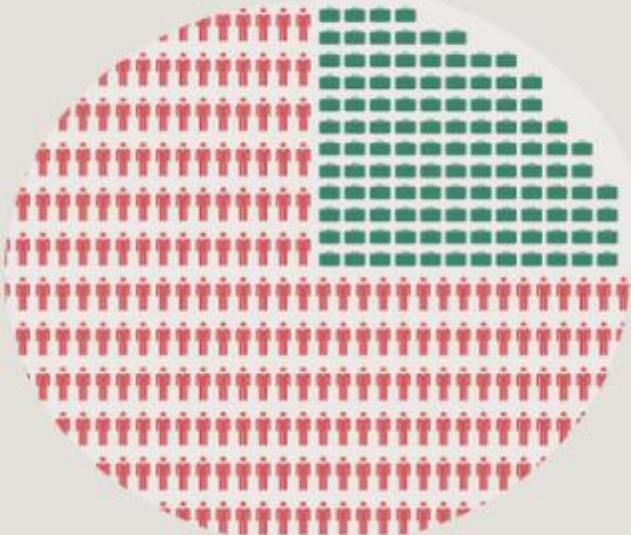


THAT IS THE  
SAME AS  
THE ENTIRE  
POPULATION  
OF BRAZIL.

**DESPITE 33 MILLION**  
LOOKING FOR A JOB IN THE  
US & EUROPE

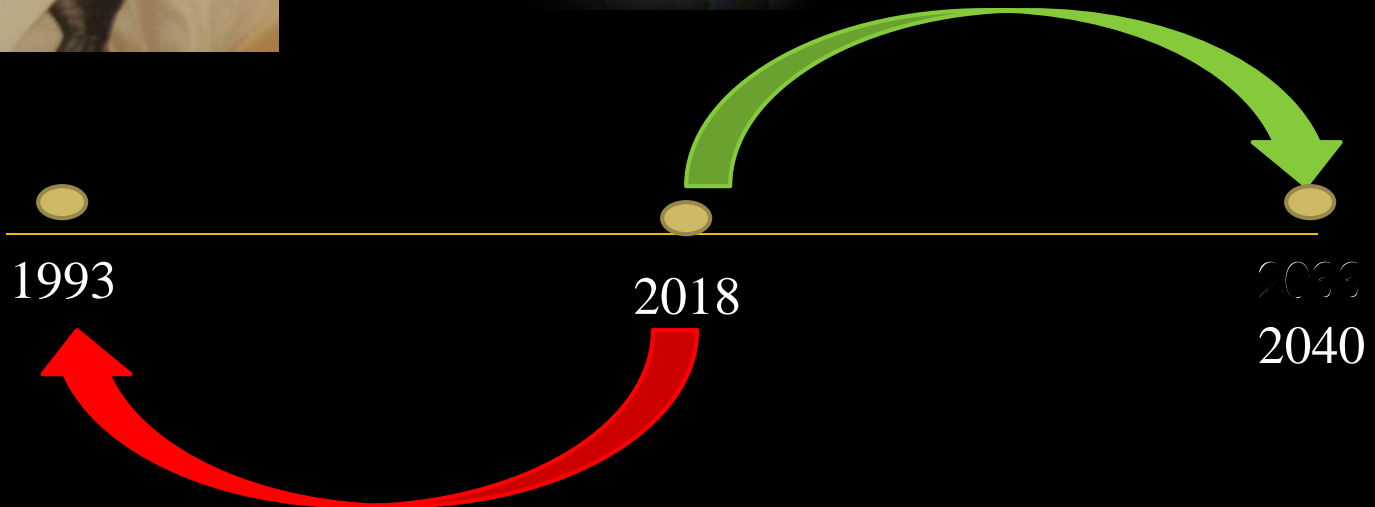


**8 MILLION**  
JOBS ARE LEFT VACANT  
EACH YEAR




**BACK**  
**TO**  
**THE FUTURE**

# Back to the Future...




# Today's children will face a labor market that:


*Will change rapidly, because of shifts in economic structure, technological progress, and increased globalization*



*Will shift away from jobs that require unskilled (routine and manual) to skilled (non-routine cognitive) labor*



*Will be comprised of jobs that do not exist today (4 in 5 elementary school students in developed economies will have a "new" job)*



*Will require much higher job rotation*



## Key Trend 2:

*Limited efficiency*



# Timely retention

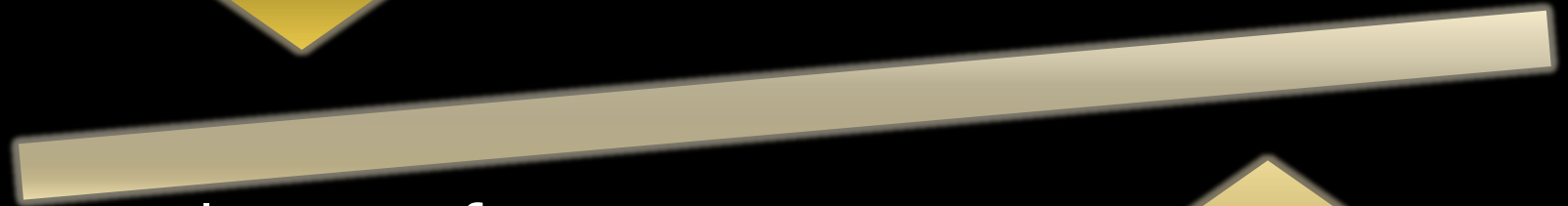


## *...a larger problem*

# Two key issues...



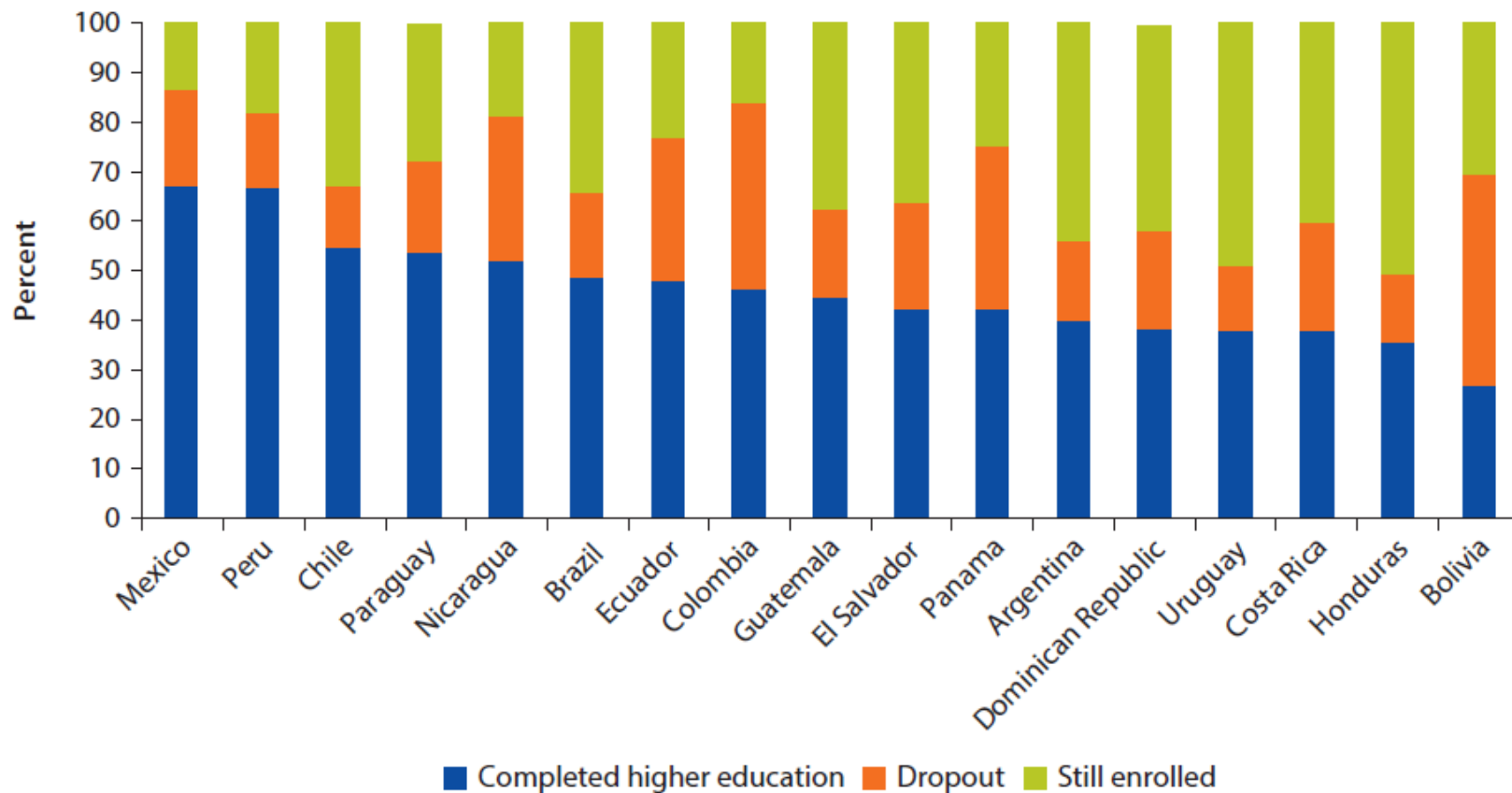
Significant number of drop-outs



Also, significant number of students not finishing on a timely manner



# Completion Rates for Youth Ages 25-29 Years. *Latin America and the Caribbean. 2012*



Source: World Bank calculations based on SEDLAC.

Note: For each country, individuals ages 25–29 years who have ever started higher education are classified into three groups: those who completed their program, those who dropped out, and those who are still enrolled. Completion rates are estimated as the ratio between youths ages 25–29 years who completed a higher education program and the number of people ages 25–29 years who ever started a higher education program.

## Key Trend 3:

*Questioning about quality and  
relevance of tertiary education*

**The magic word: Accreditation**

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A mixed picture...



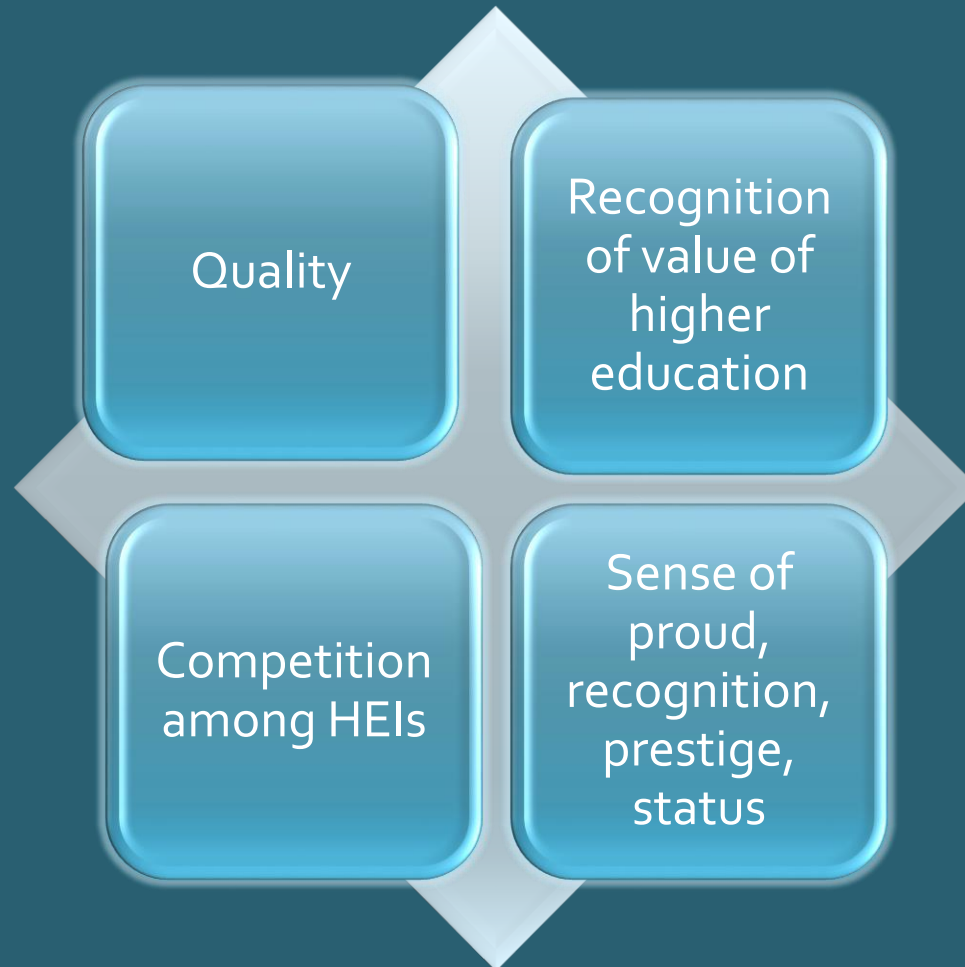
THE  
GOOD

THE  
BAD

AND  
THE UGLY



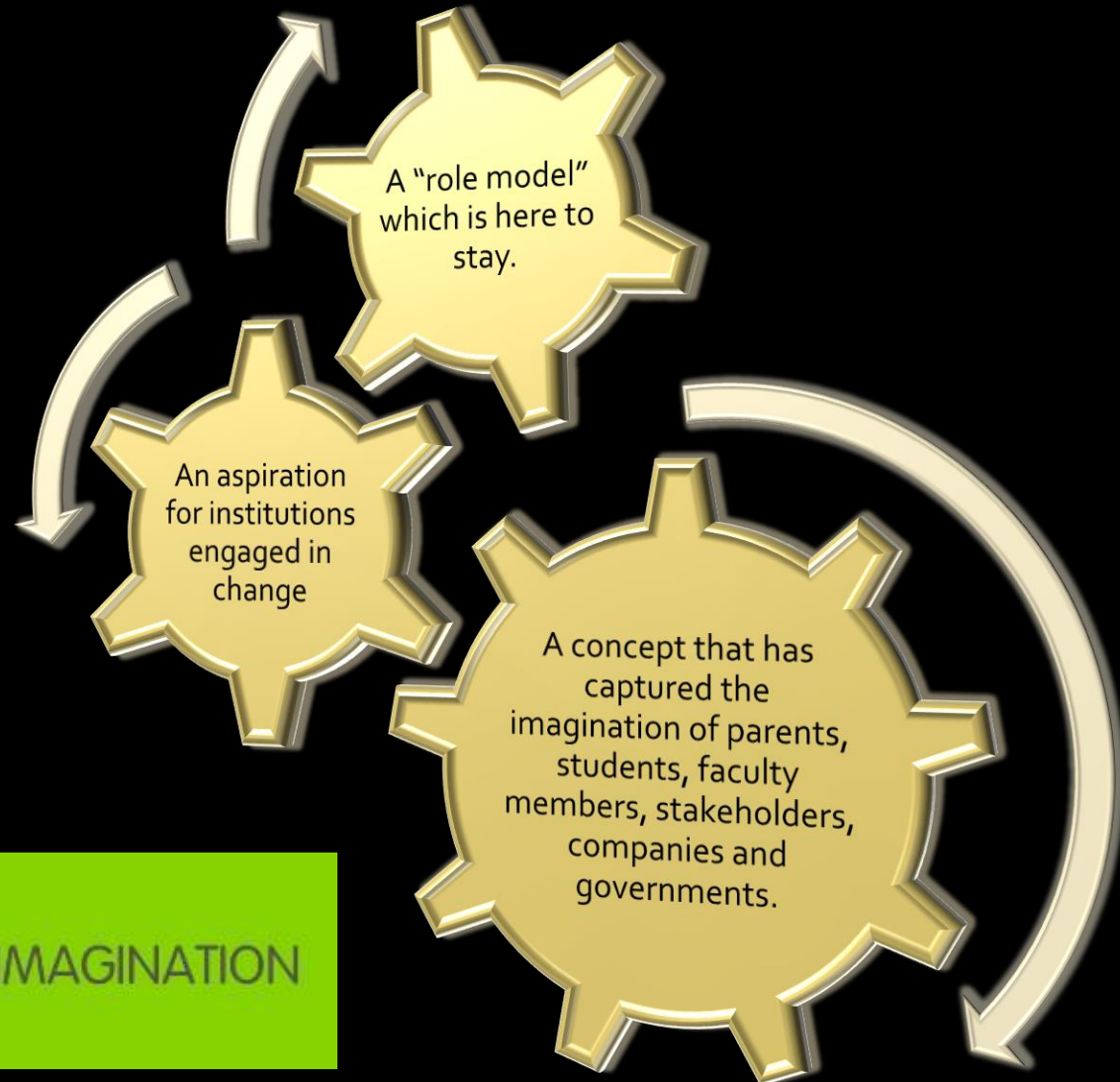
# Accreditation as a major enabler of...



Accountability and openness



# Something intriguing about it



CAPTURING YOUR IMAGINATION

But, what role model?









# The not so good (or bad)...

*Is accreditation an adequate proxy  
of good higher education  
institutions?*

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What?

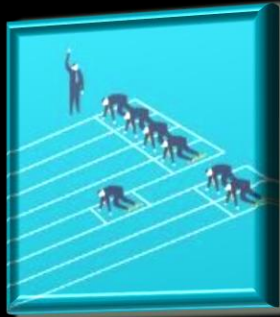
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Why?

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How?

# Towards the need for more diversified higher education systems



Biases towards “universities”  
as the only higher education  
option persist.

Pathways allowing mobility  
between technical and  
vocational institutions and  
universities are also very  
limited, if they exist at all.



Non WCUs as “second class”  
citizens

# The not so good (or bad)...

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Unintended (or intended?)  
stratification in the educational  
system (and in society).

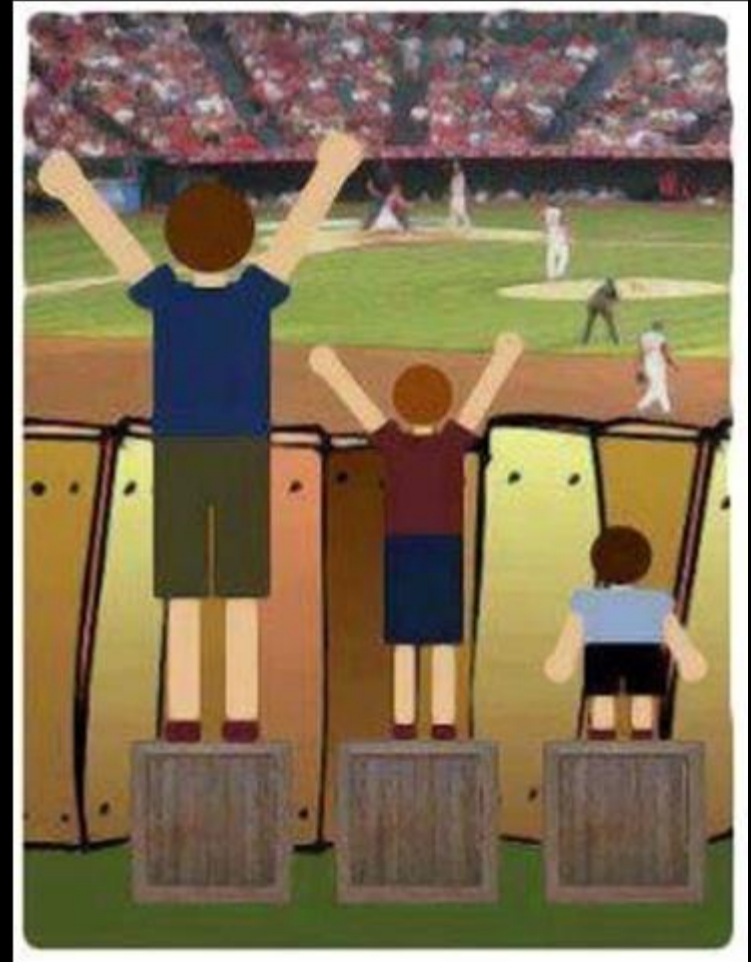
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Selectivity for whom

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A regressive funding approach

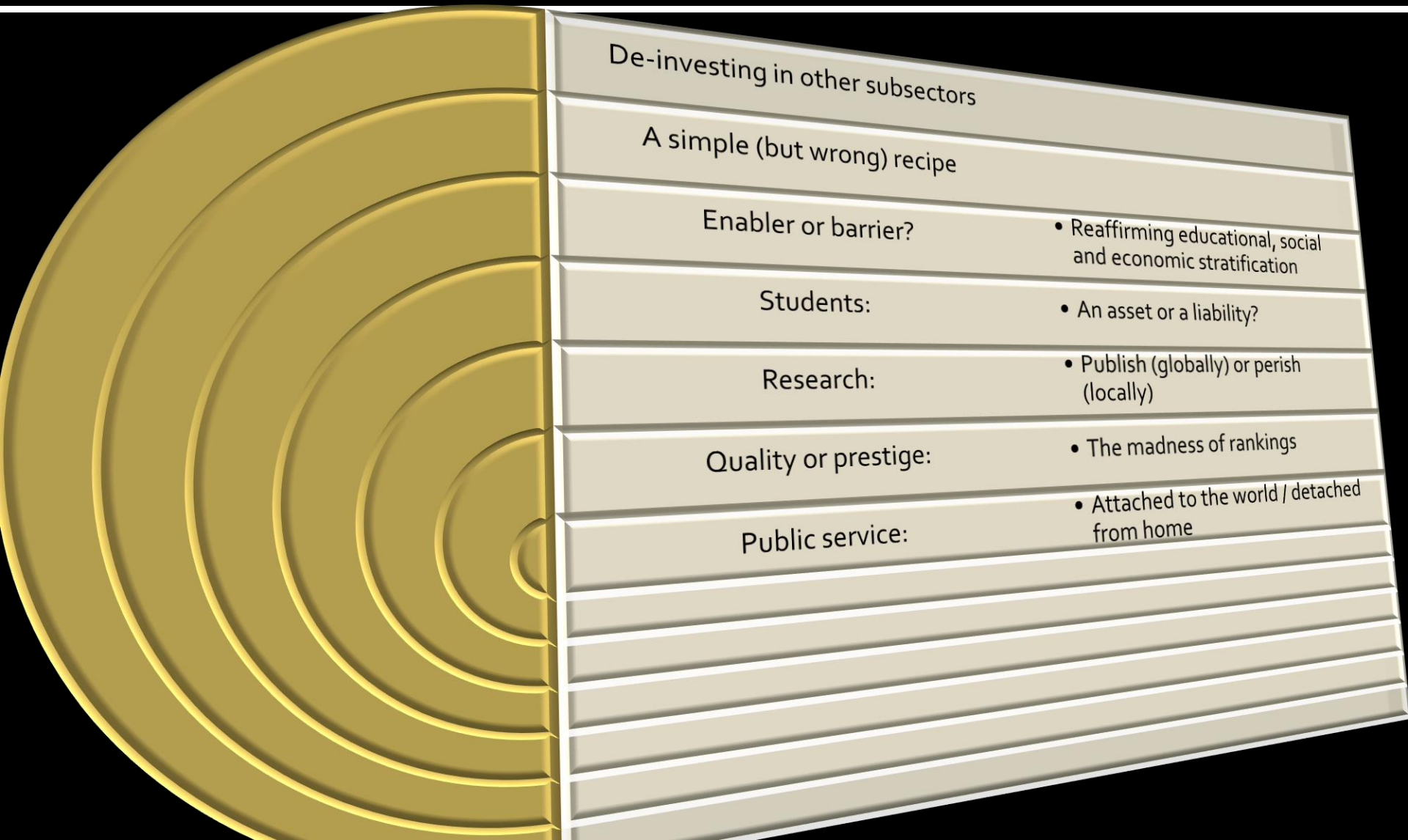
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THE  
GOOD THE  
BAD

AND  
THE UGLY







# Some additional “ugliness”

Misleading facts and  
manipulating numbers?

About quality or about capacity to “sell”  
better?

A predatory and  
cannibalistic field?

Brutal reallocation of internal  
funding and priorities just for  
the sake of improving the  
rankings

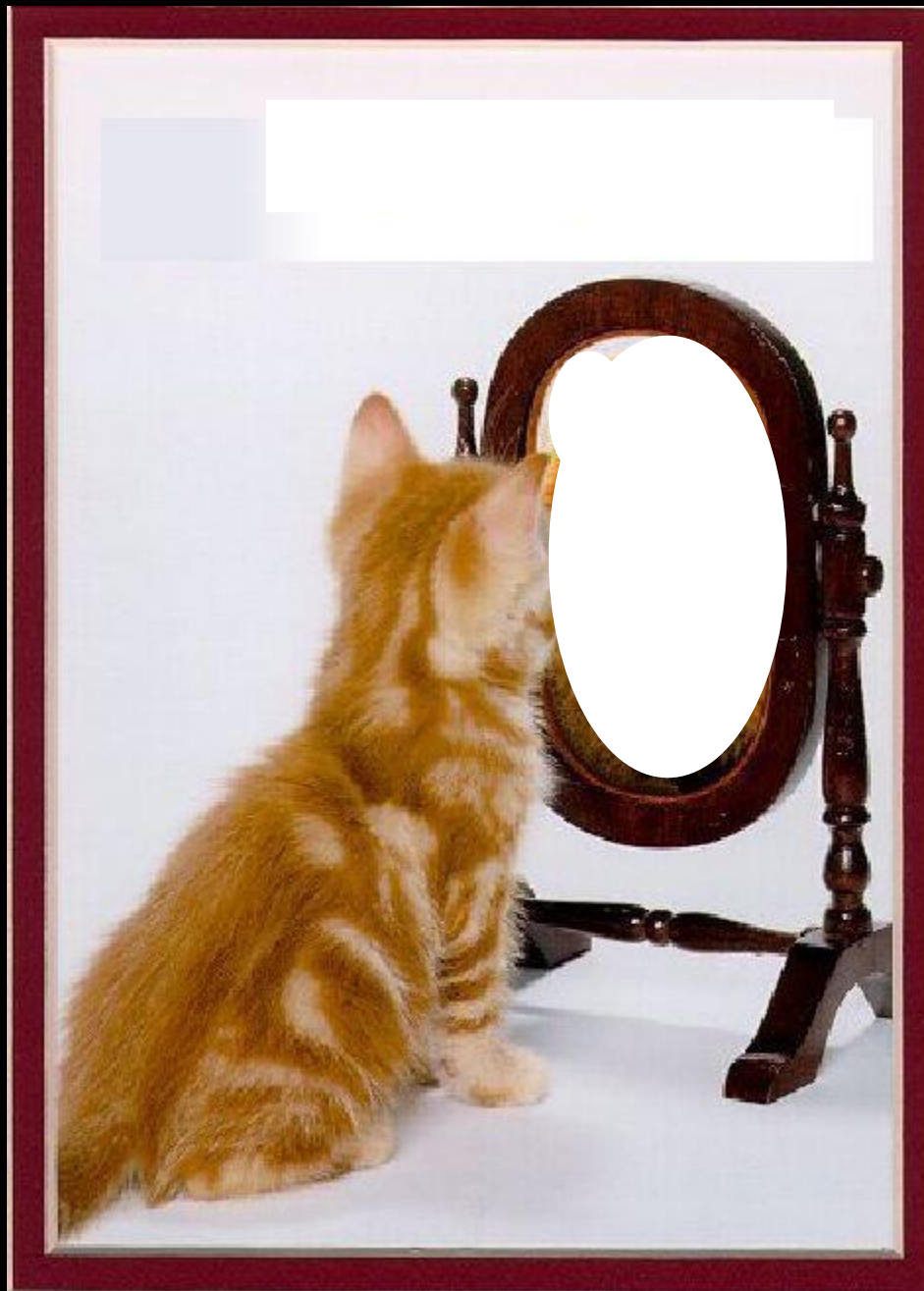
A perverse incentive and rewards  
system

A distortion of the  
ultimate goals of  
tertiary education

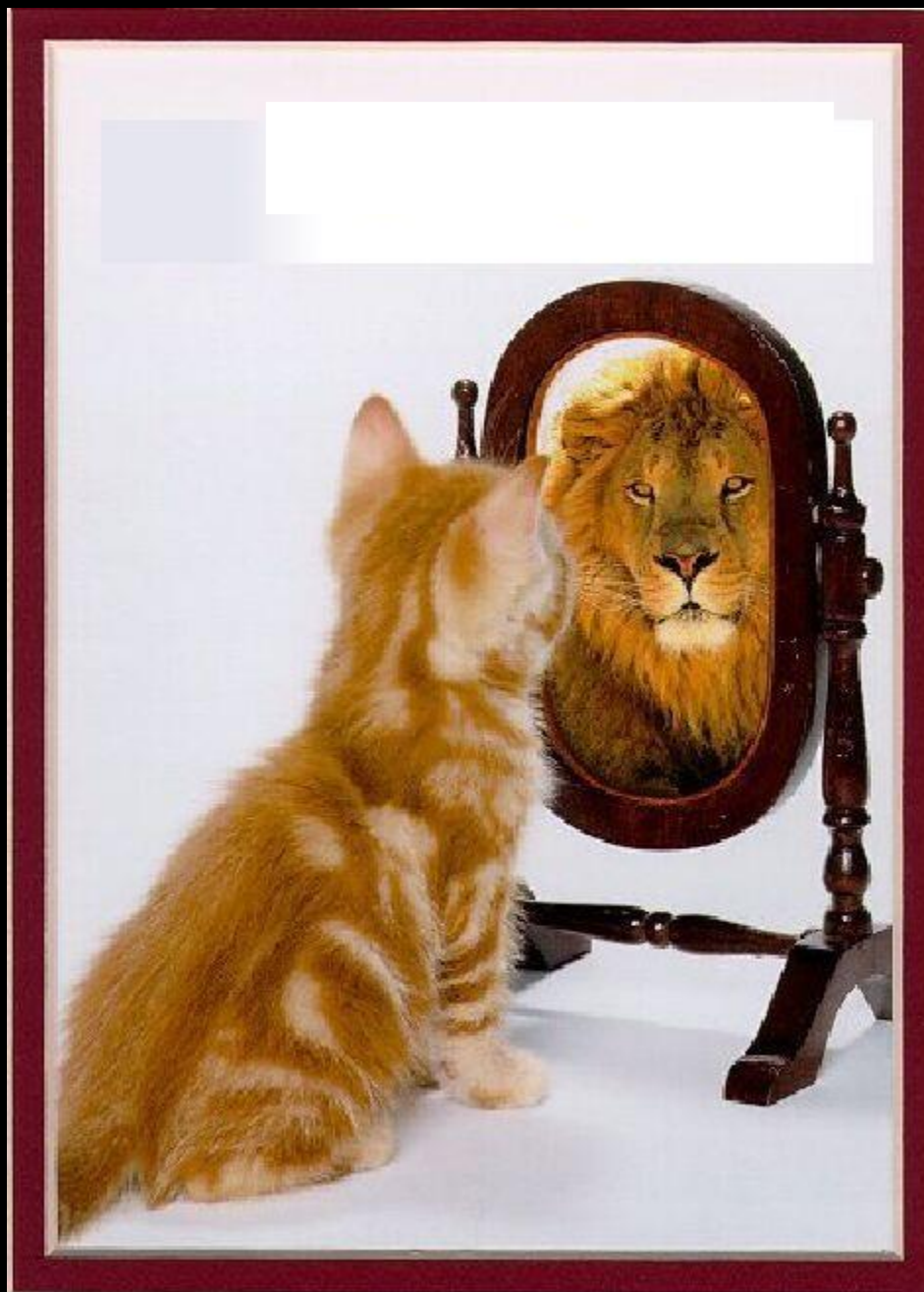
Does the end justify the means no  
matter what?

# On quality...and rankings









# On Quality

*Accreditation: Act of compliance or means for enhancement?*

*Quality as goal or as means?*

QUALITY

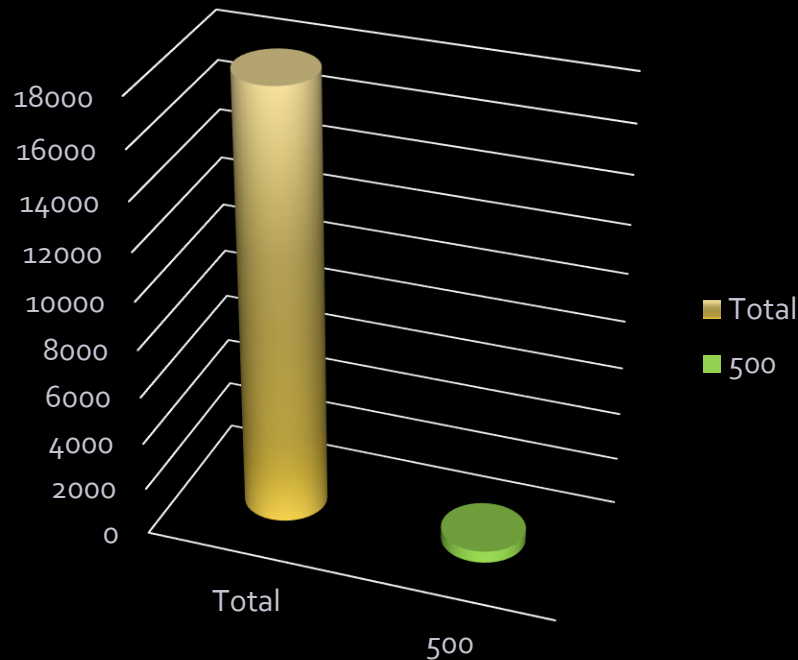
*Does quality respond to relevance needs?  
Do we know?*

*The tyranny of rankings*

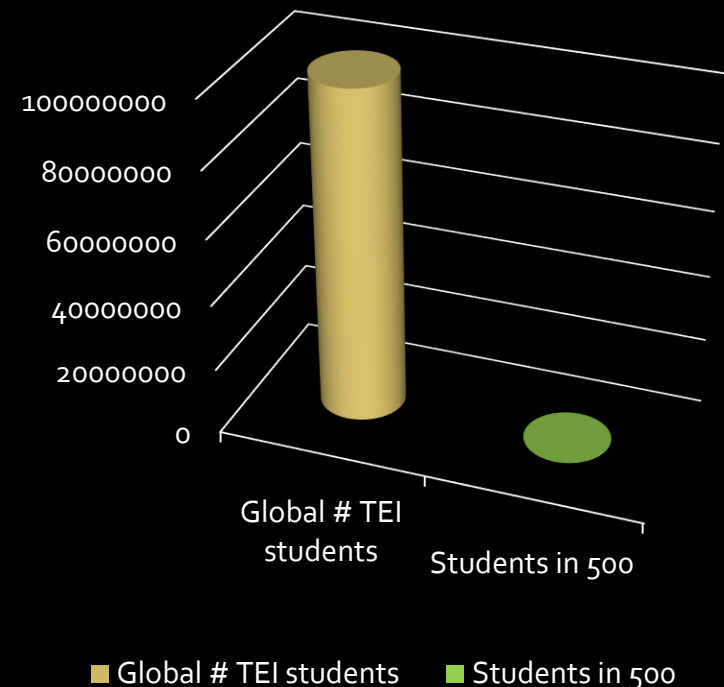


# The share of Top 500 universities in the world of higher education

## NUMBER OF INSTITUTIONS



## STUDENT ENROLLMENT

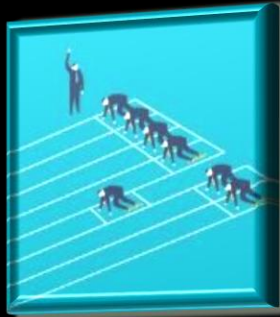


## Key Trend 4:

### *Institutional diversification*

# Diversification or fragmentation?

# Towards the need for more diversified higher education systems



Biases towards “universities”  
as the only higher education  
option persist.

Pathways allowing mobility  
between technical and  
vocational institutions and  
universities are also very  
limited, if they exist at all.



Non ranked institutions as  
“second class” citizens

## Key Trend 5:

*The changing learning paradigm  
and the need for increased  
relevance*

# What are our students learning?



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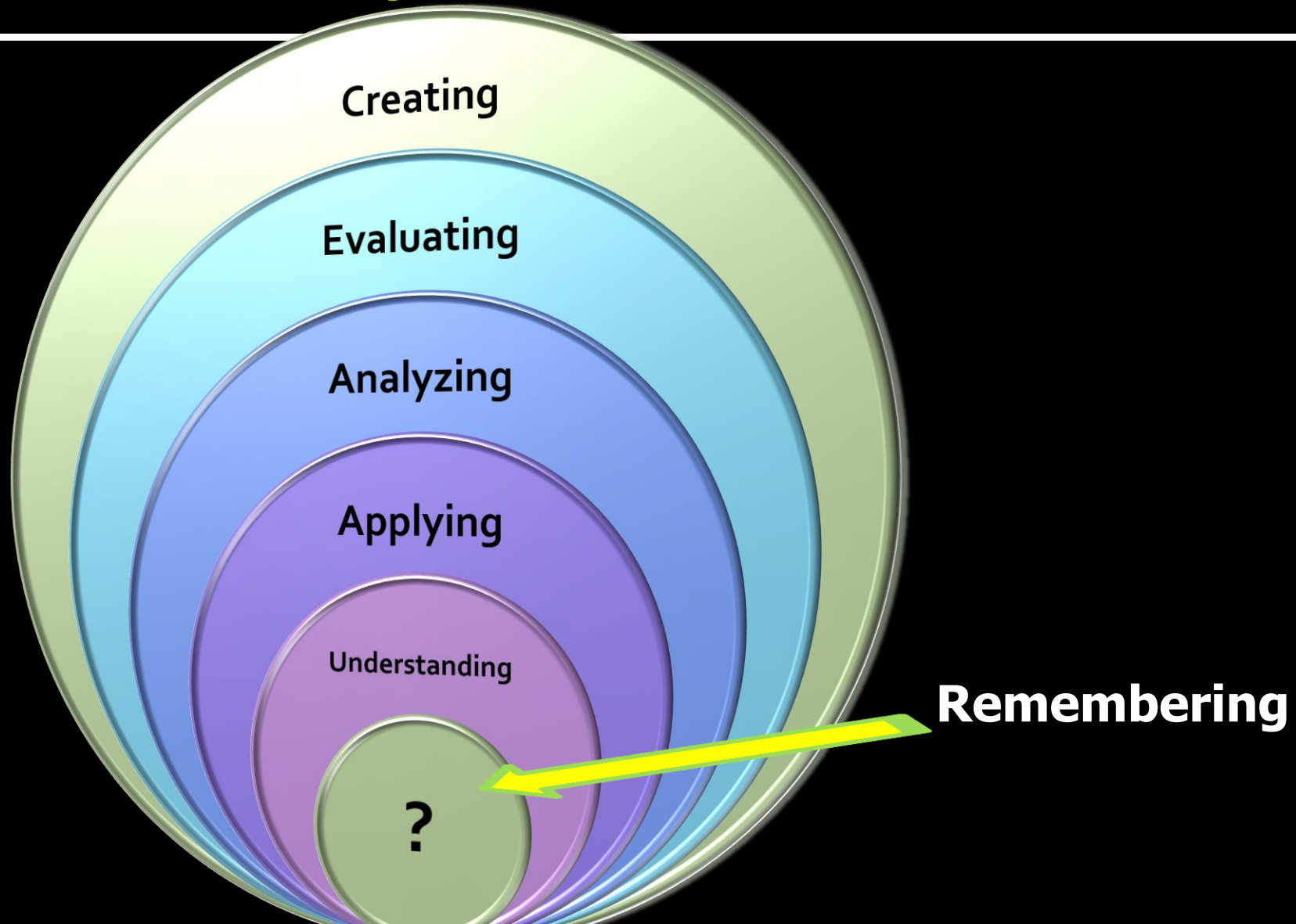


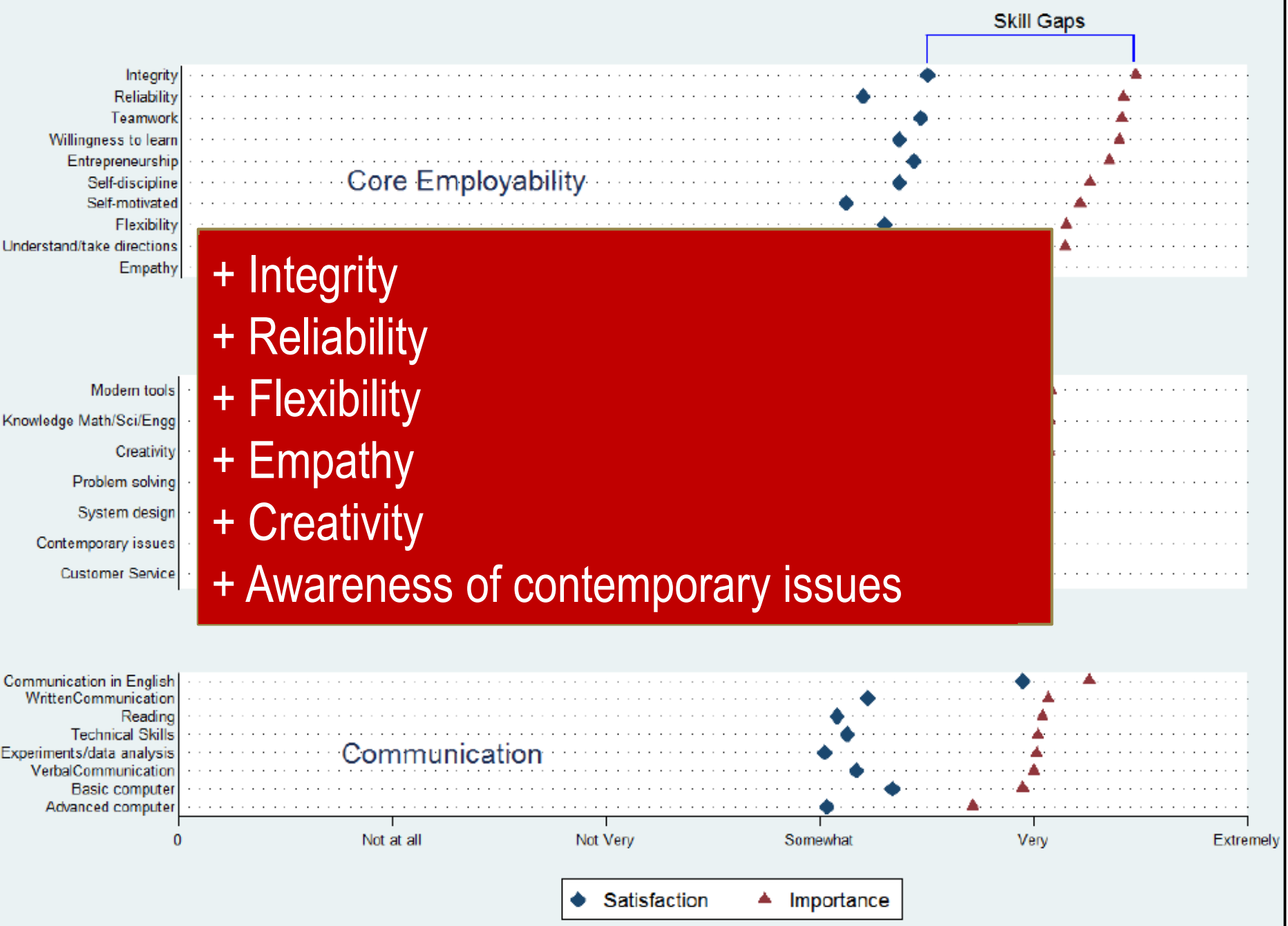


SCHOOL

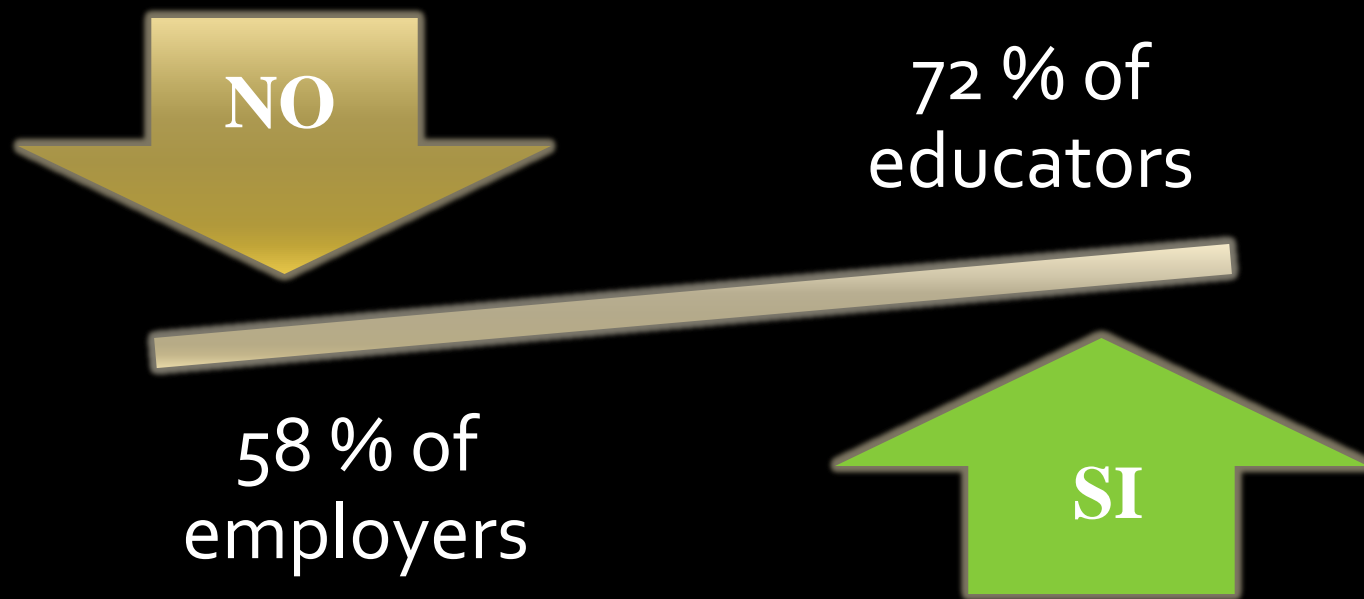
# What are students learning?

## *Bloom's Taxonomy (Revised)*





Employers complain that workers don't have the adequate skills.



Source: Mourshed, Farrell, y Barton (2012), *Education to Employment: Designing a System that Works*.

Hypothesis : the labor market is demanding a combination of skills different to the ones that are being provided by the educational system

# 10 key skills for future graduates



Sense-making



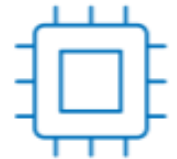
Social  
intelligence



Novel & adaptive  
thinking



Cross-cultural  
competency



Computational  
thinking



New media  
literacy



Transdisciplinarity



Design  
mindset



Cognitive load  
management



Virtual  
collaboration

**Source: The Institute for the Future.**

**British Council (2017). 10 trends Transformative changes in higher education**

# Needed, a greater culture of evidence



# Does the learning of those skills happen...?



Due to internationalization

Despite the internationalization

Independently of internationalization

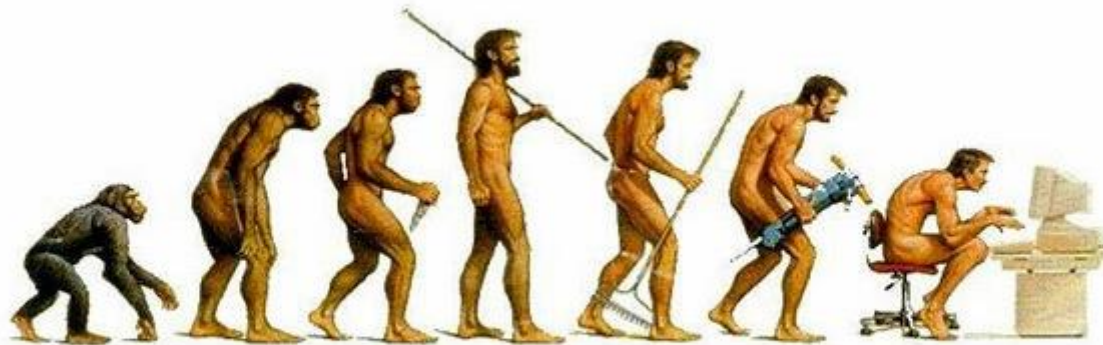
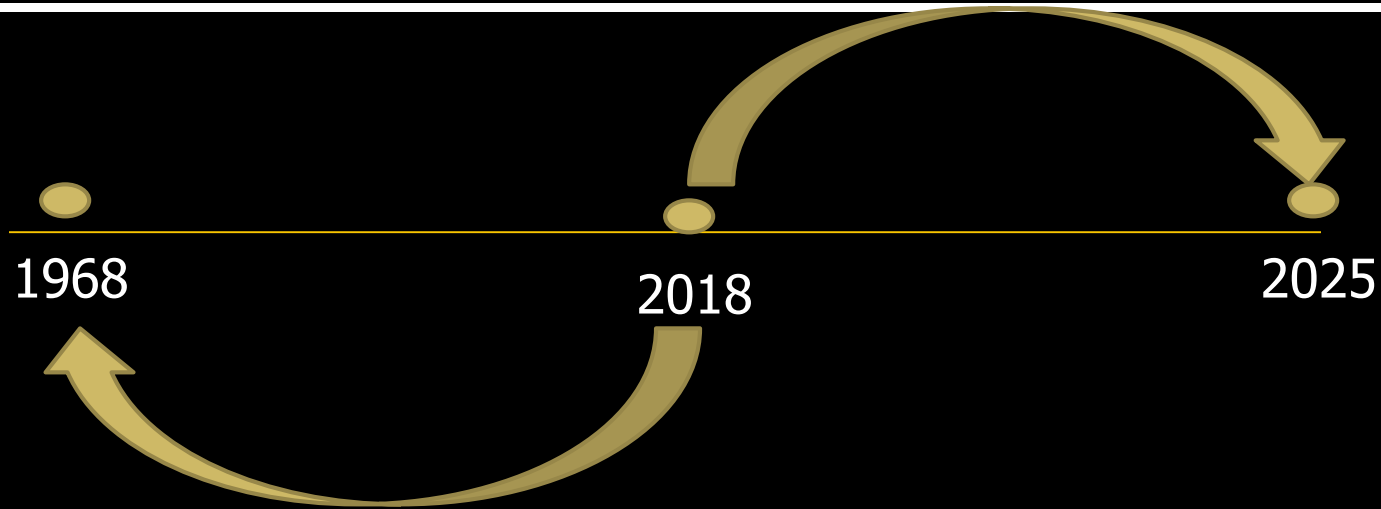
**Many times we don't know**

## Key Trend 4:

### *The disruption of technology*

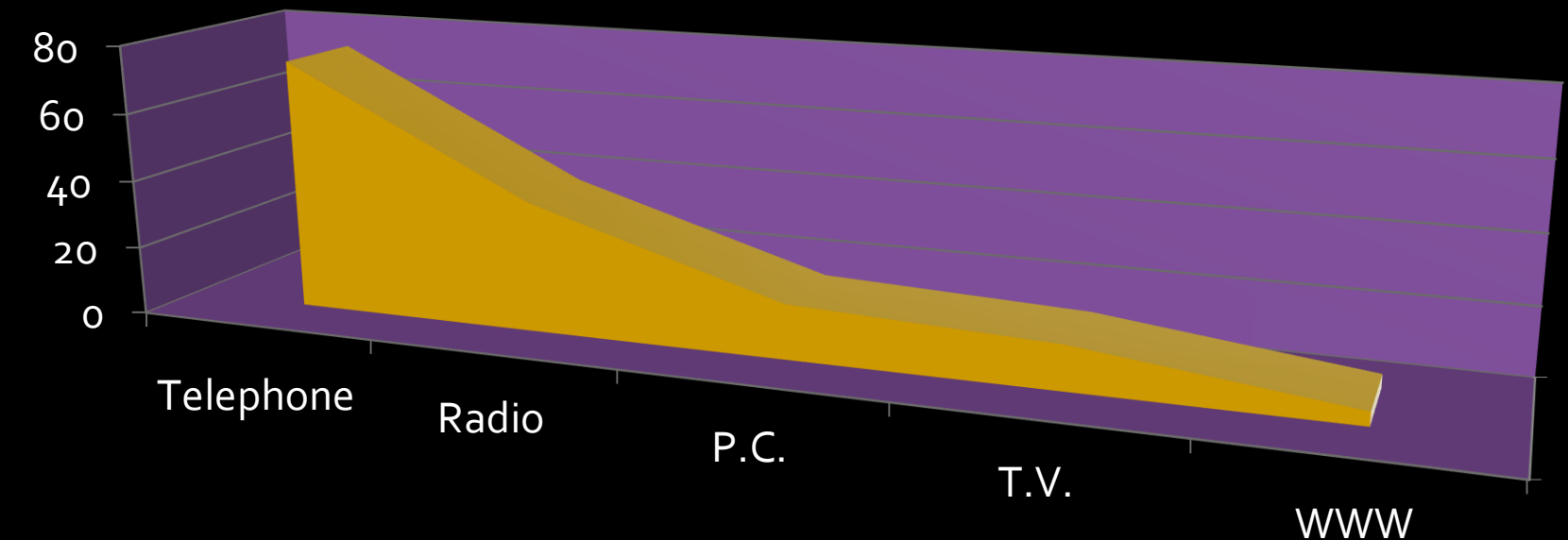


# Back to the Future...



# Adoption of Technology in 50 million households worldwide

*Years required*



Telephone	Radio	P.C.	T.V.	WWW
74	38	16	13	4

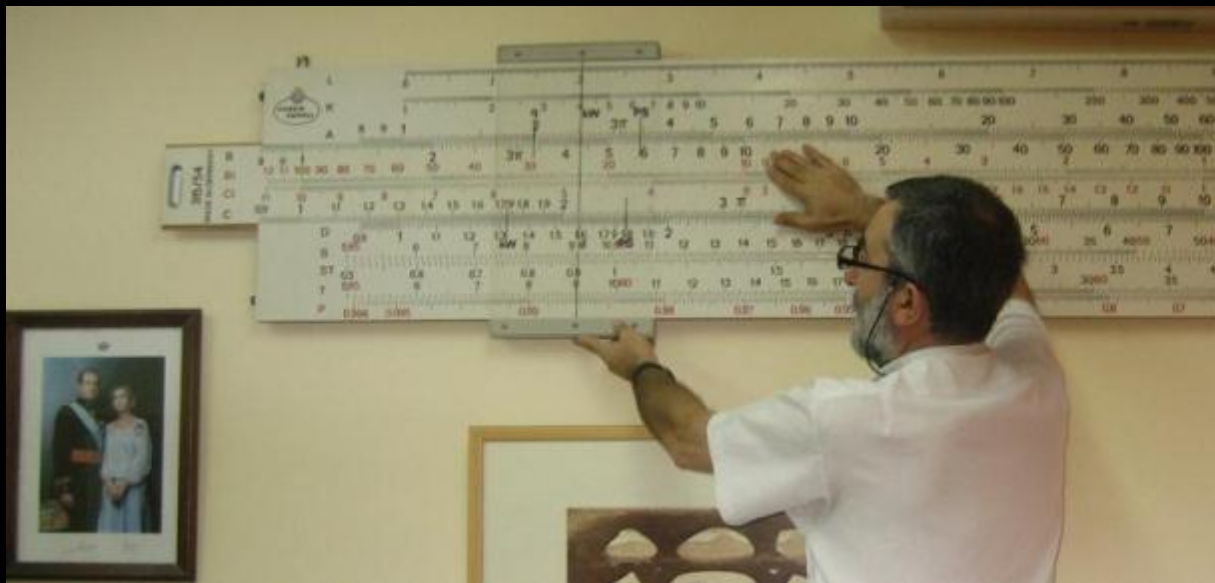


*Source: ITU, 1999*

# Aunt Consuelo



# Do you remember the Slide Rule?



**150 Extra Engineers**

An IBM Electronic Calculator speeds through thousands of intricate computations so quickly that on many complex problems it's just like having 150 EXTRA Engineers.

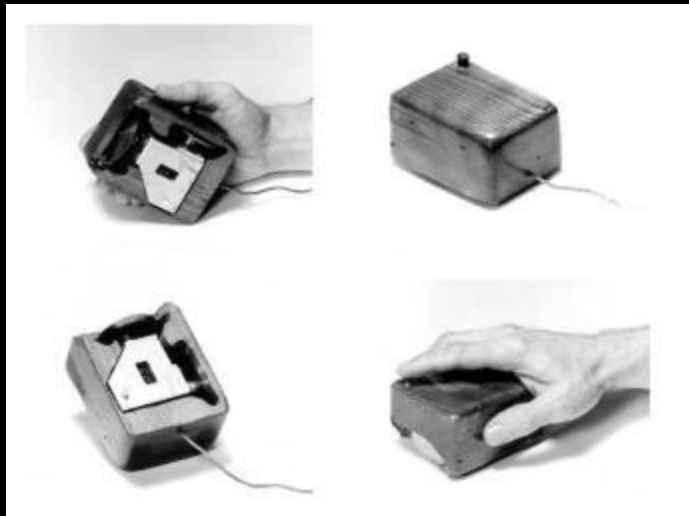
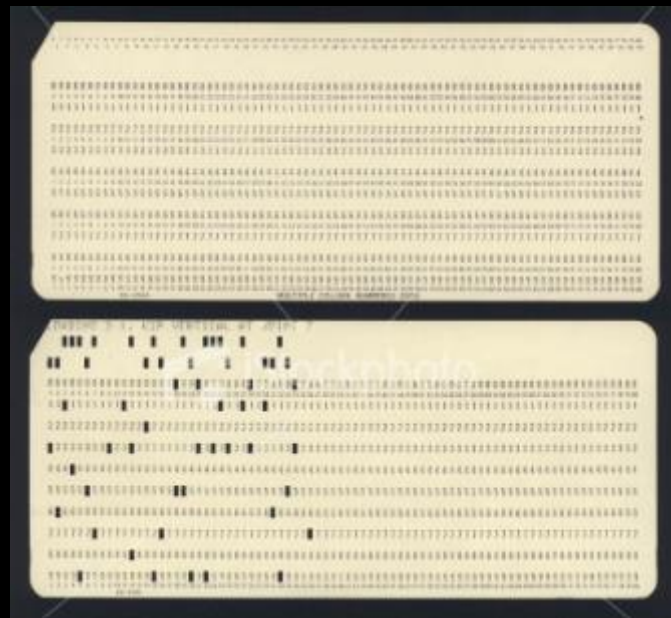
No longer must valuable engineering personnel... now in critical shortage... spend priceless creative time at routine repetitive figuring.

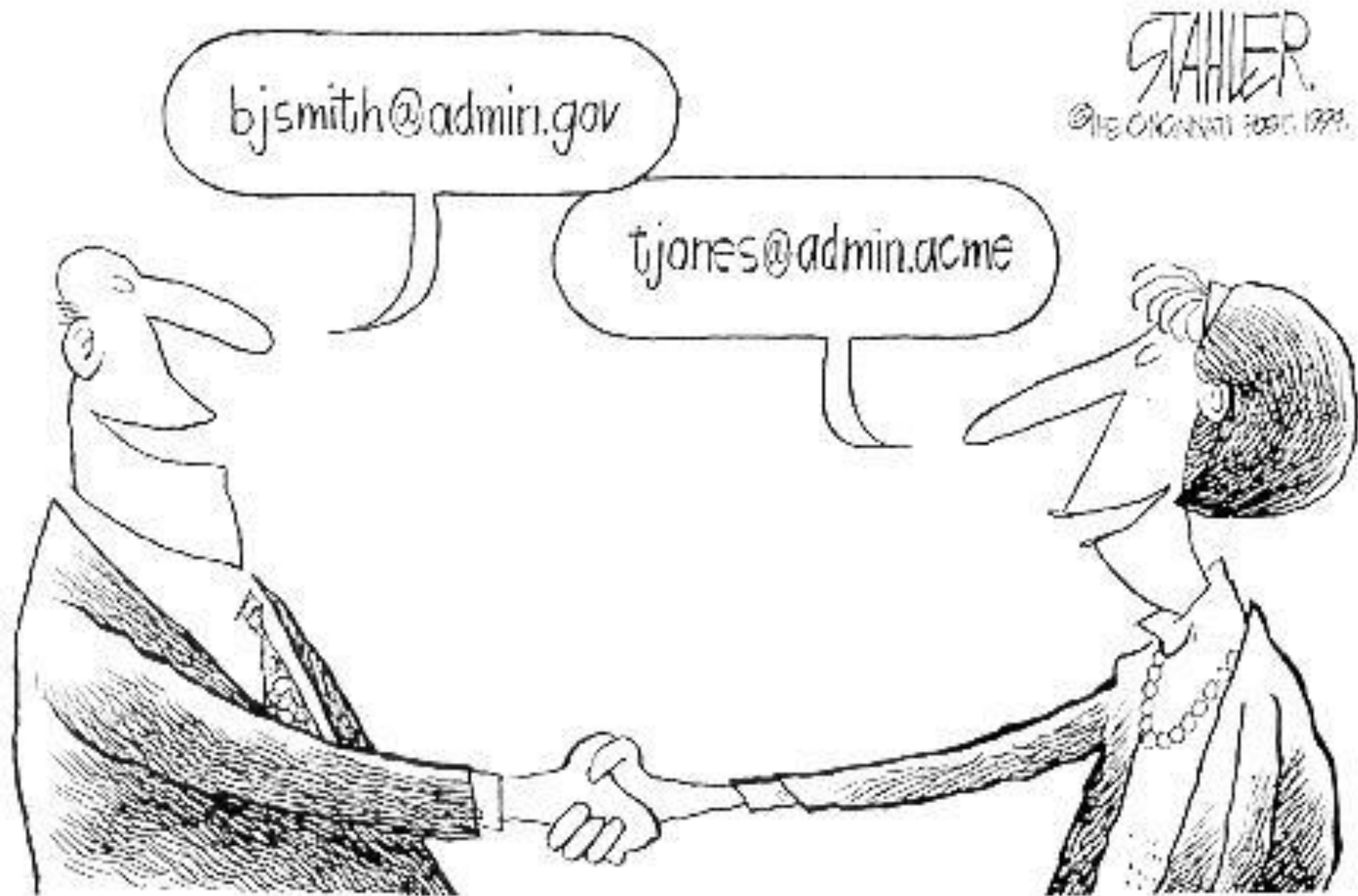
Thousands of IBM Electronic Business Machines... vital to our nation's defense... are at work for science, industry, and the armed forces, in laboratories, factories, and offices, helping to meet urgent demands for greater production.



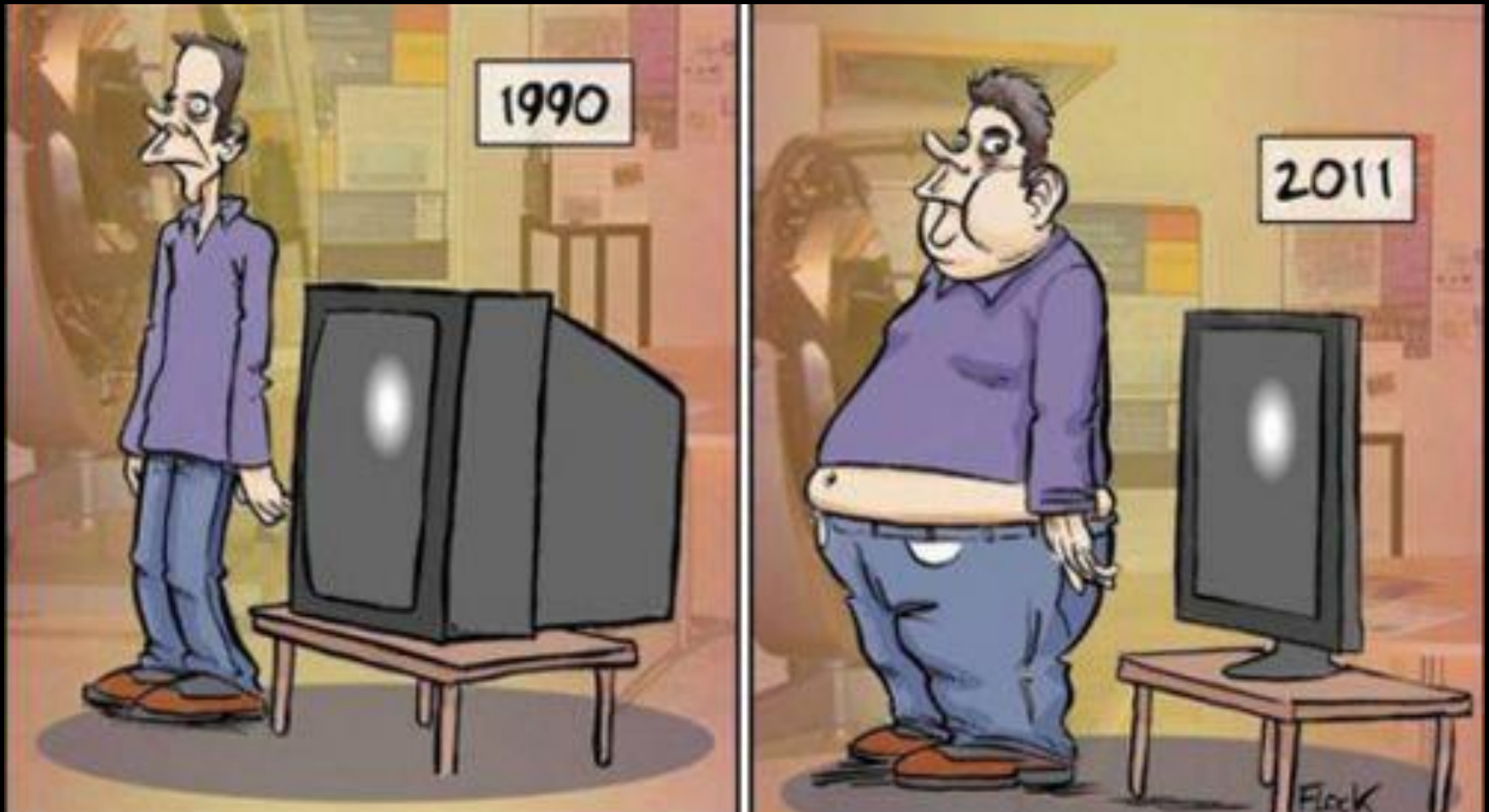
**IBM**  
INTERNATIONAL BUSINESS MACHINES



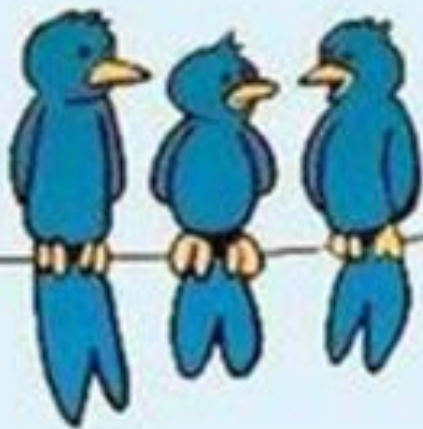




# Our technology



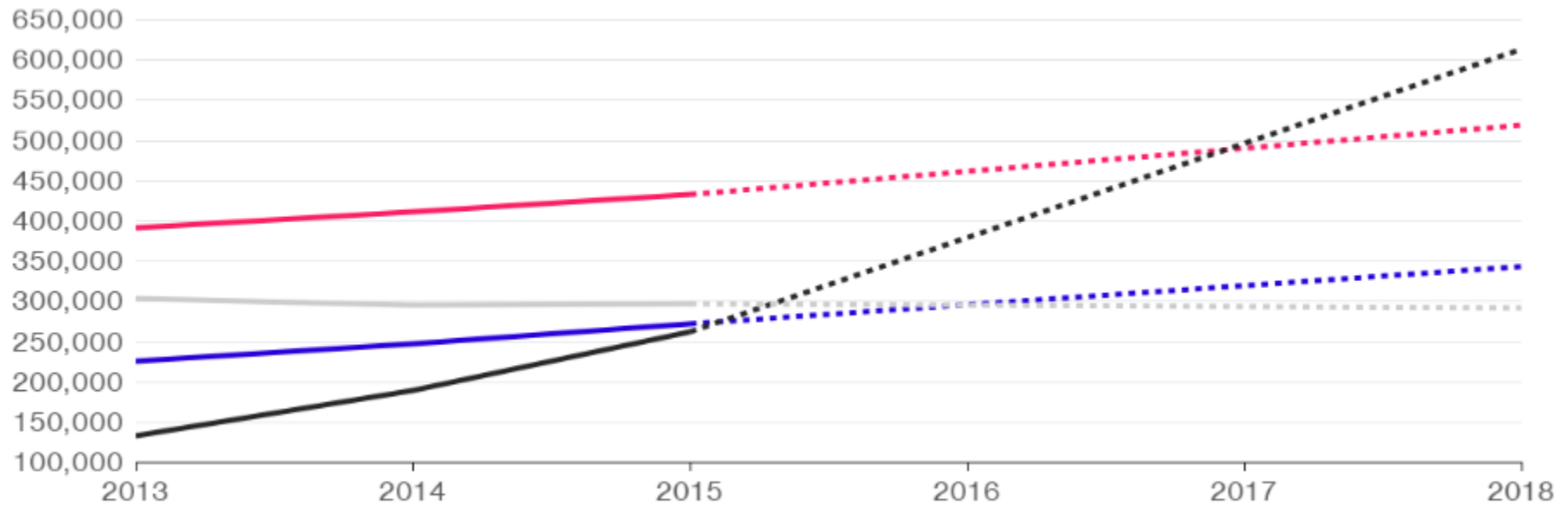
He uses WiFi



# Robotization: a reality

The stock of industrial robots in operation worldwide will rise 12% a year between 2014-2018

America Europe China Japan



Sources: UniCredit Research, International Federation of Robotics

Bloomberg 

# Are the skills changing due to the ramifications of the IR 4.0?



1784-1840



# 4th Industrial Revolution (IR 4.0): What are we talking about?

A stage in the development of knowledge in which the lines between the physical, digital and biological spheres are being blurred.



# Potential consequences



A full scale shift would add billions of dollars to the global economy in the next 15 years



At least 5 million Jobs in the 15 most industrialized countries would disappear



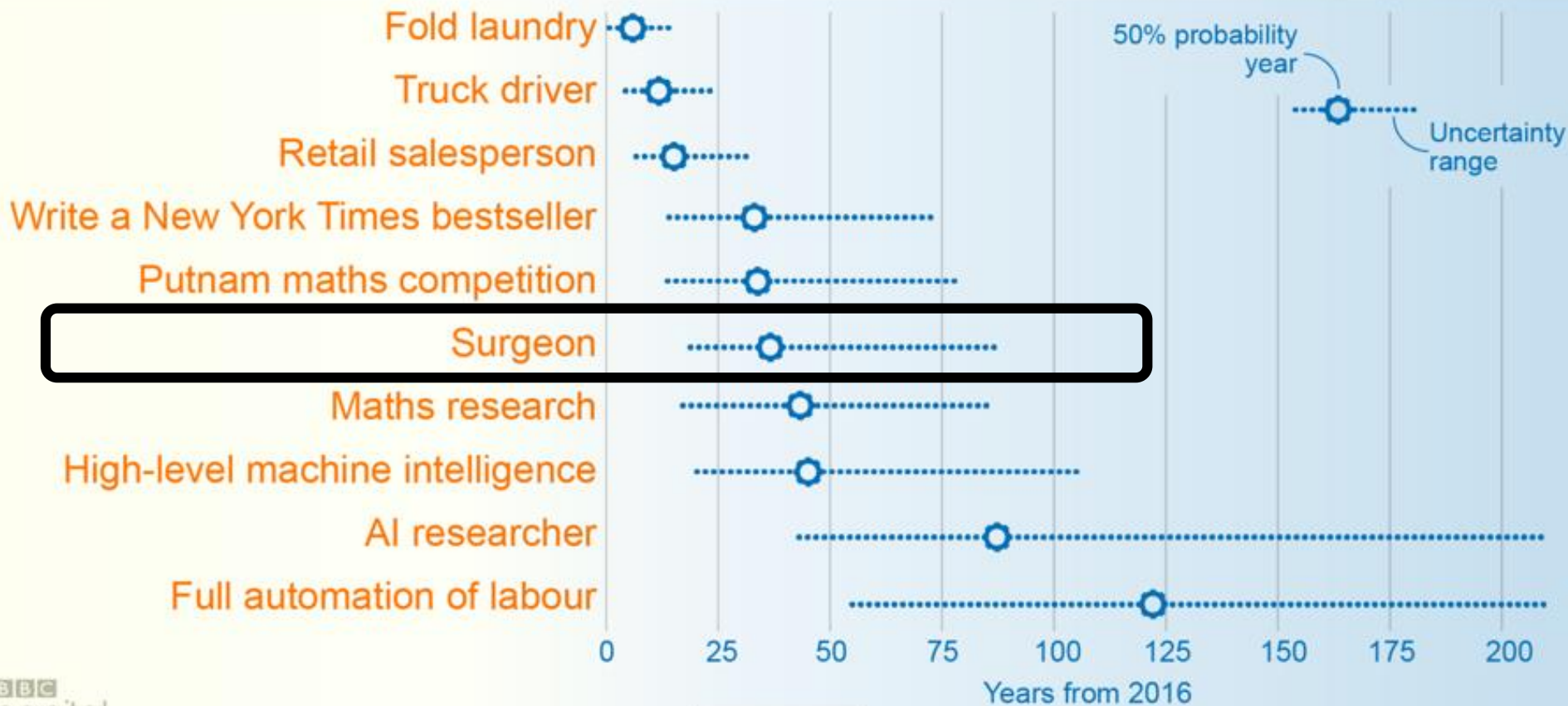
It has the potential to increase global income and to improve life conditions of entire populations, but it would mostly benefit to those able to innovate and adapt.



It may increase inequality and income distribution, and it would entail all kinds of geopolitical Security dilemmas



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



# Science fiction or reality?



**AMRITA**

## 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

NEUROSURGERY	GYNAE-ONCOLOGY	UROLOGY	GI SURGERY	HEAD & NECK SURGERY	CVTS
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Exceptional Technology. Compassionate Care.

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[www.amritahospital.org](http://www.amritahospital.org)

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da Vinci Xi

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



# What is the impact on education?



*"You should check your e-mails more often. I fired you over three weeks ago."*



A new type of  
students

Why does it matter?

 @fmarmole

Email: [fmarmolejo@worldbank.org](mailto:fmarmolejo@worldbank.org)



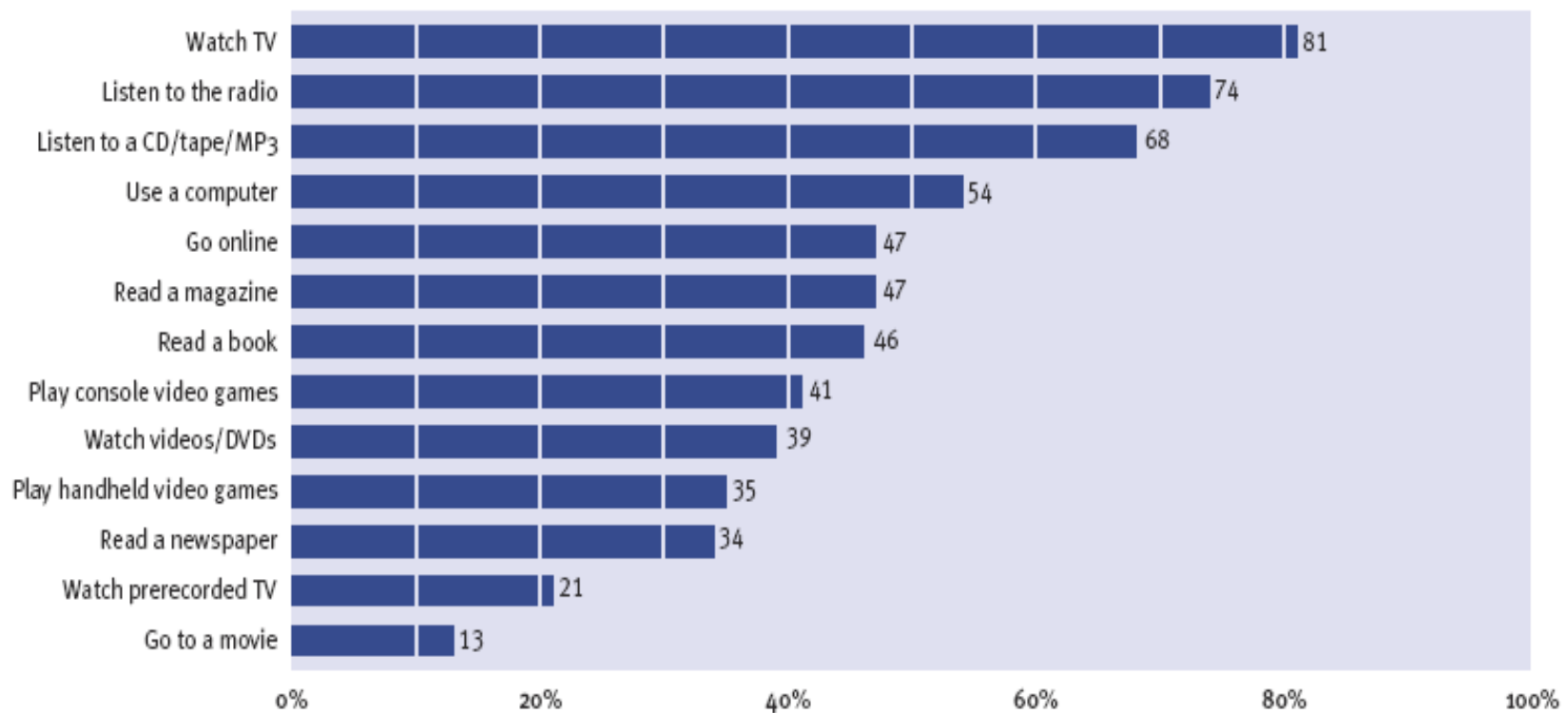
# Different youth?



# ¿Sequential? Multi-task?

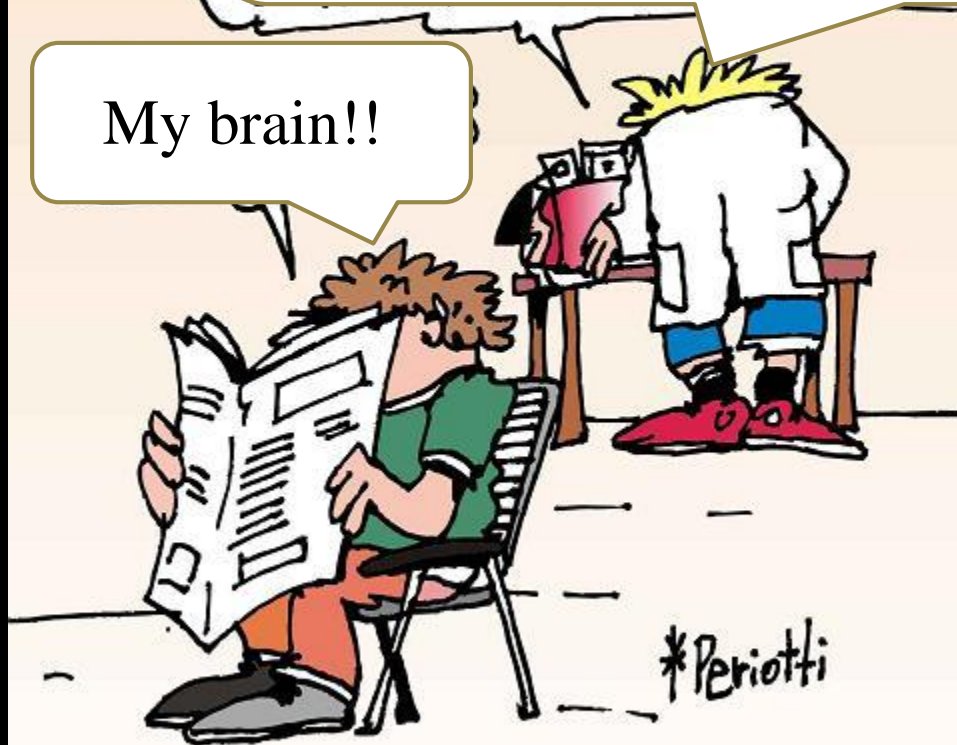
## Which Media Young People Use

In a typical day, percentage of 8- to 18-year-olds who...



I have a netbook, MP3  
Players, flashdrive, IPAD...  
Dad, what did you use in  
school when you were  
student?

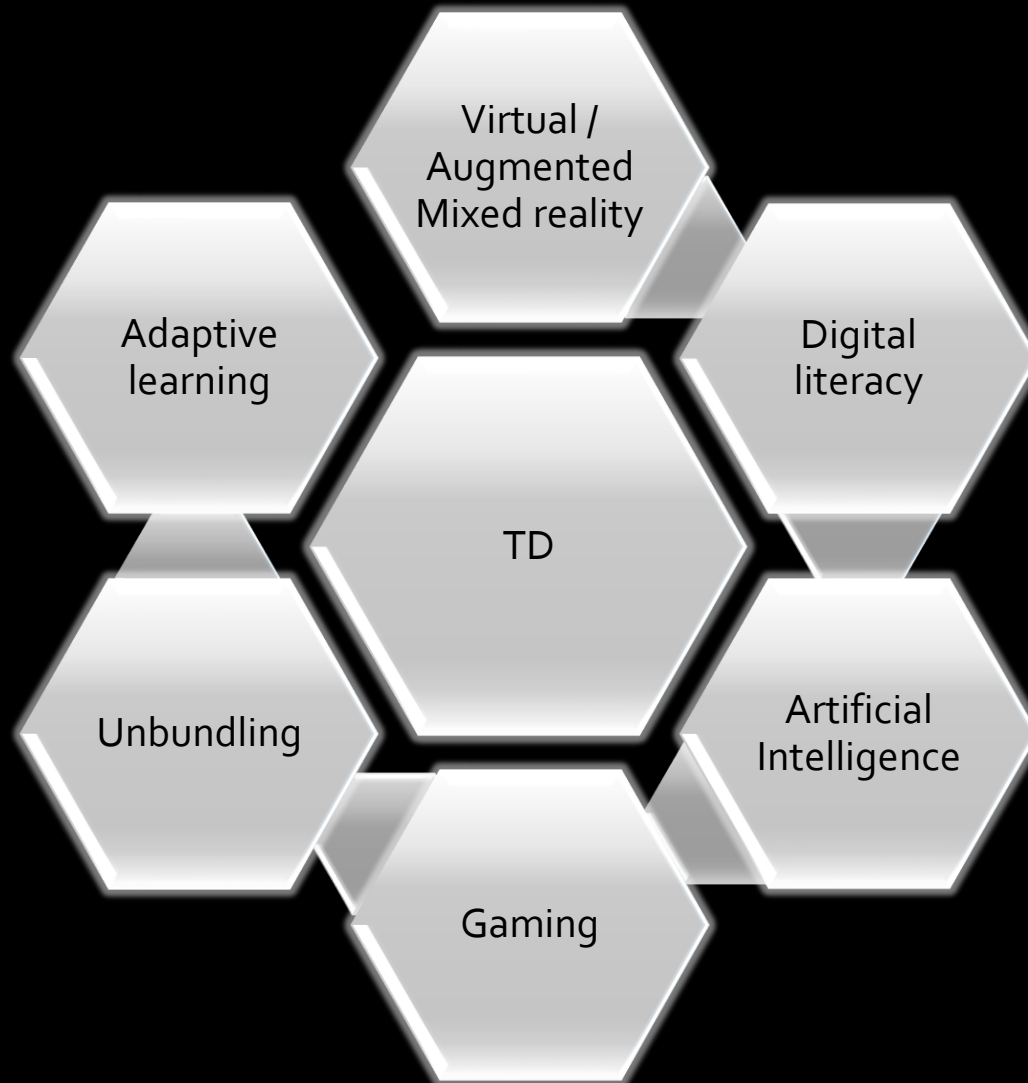
My brain!!






**A possible future? Reality or science fiction?**

# Technological developments: Direct impact on education



# Some global trends in curriculum innovation

	General global trends	USA
Recognition of previous learning	Increased acceptance. NQF	
Flexibility in academic subjects	General Education	
Easier transition pathways between levels and institutions	Articulation arrangements	
Competency-based portfolio	NQF	
Blended teaching-learning	MOOCs	
Experiential & service learning	Co-Op programs	
Internationalization	+ 2 <sup>nd</sup> language and increased student mobility + Internationalization “at home”	
Academic workload	Significant “compression”	



# Governments must act..

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

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



@fmarmole

**Email:** [fmarmolejo@worldbank.org](mailto:fmarmolejo@worldbank.org)

# Higher education is data rich,



# but information poor.

LEARN MORE AT

[HigherEdFacts.org](https://HigherEdFacts.org)

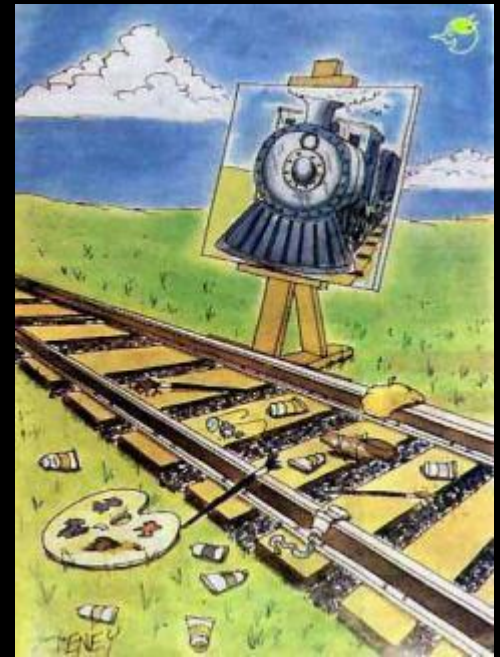
# The Italian University in 1350



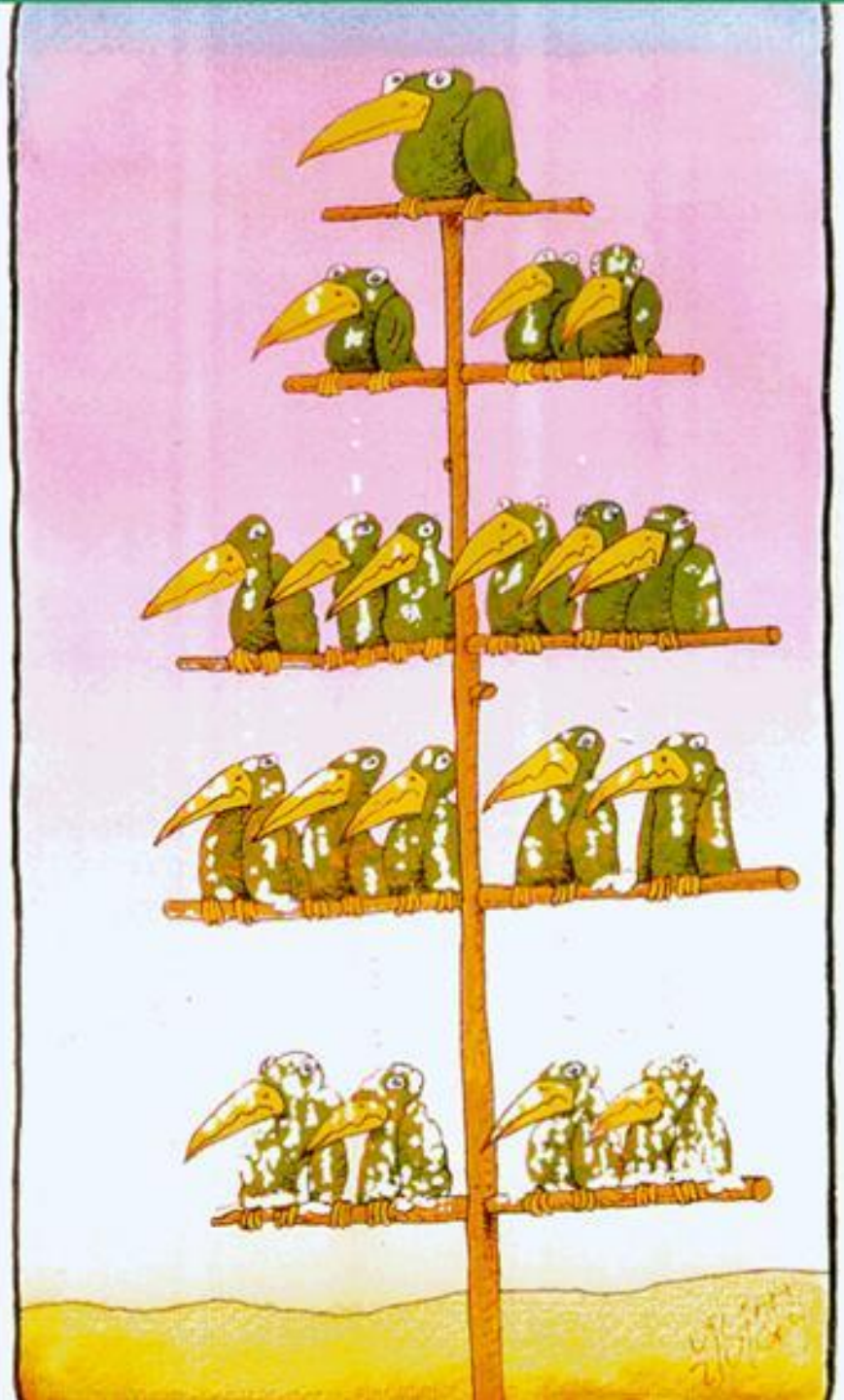
*...and today's universities*

# The art of ambiguity

Continuing doing the  
same, but waiting  
different results



Who is  
responsible?





**“Higher education is the only business that holds a formal ceremony to get rid of its clients”**



Elliot Masie, President - The Masie Center



# A paradox



Higher education institutions are the best laboratory for social change

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

# A simple formula: More and better education

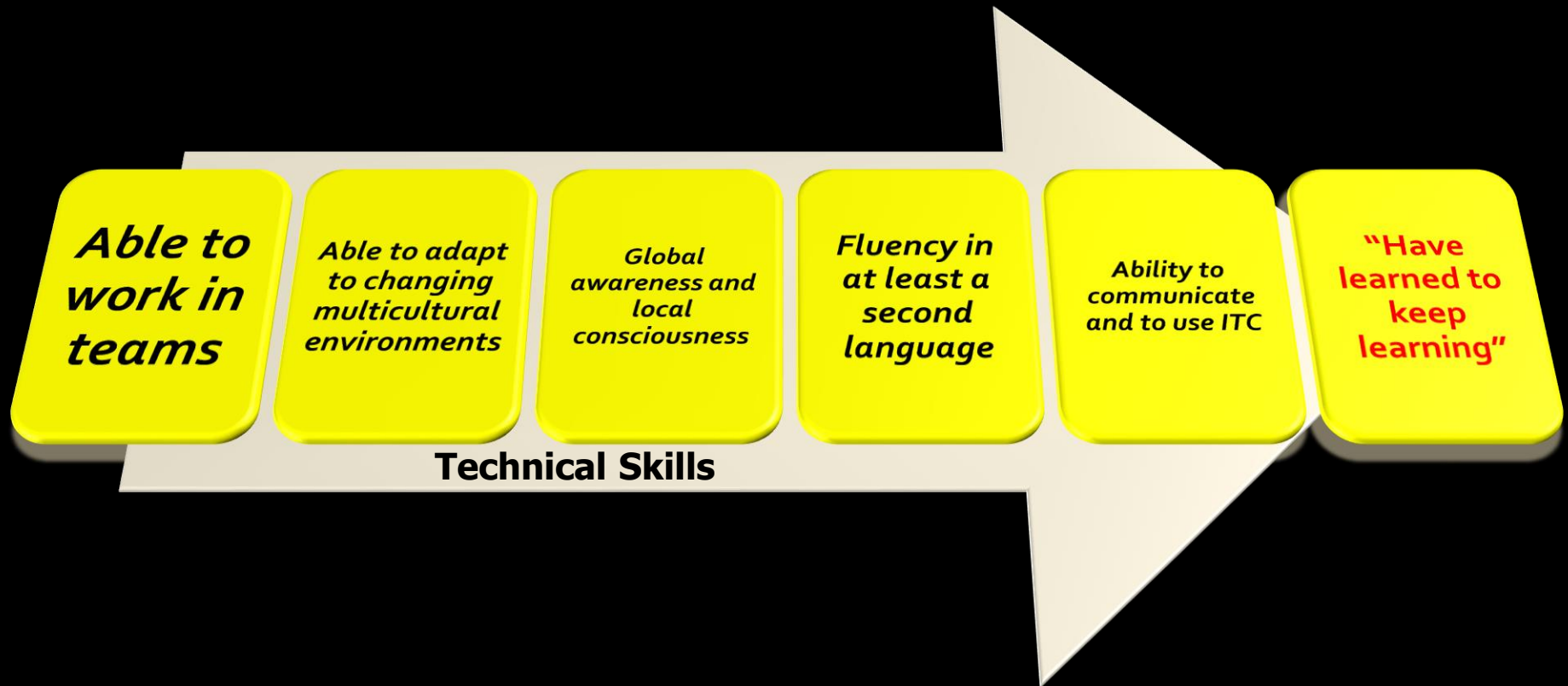
# ...but what type of education?

# The professional of the future

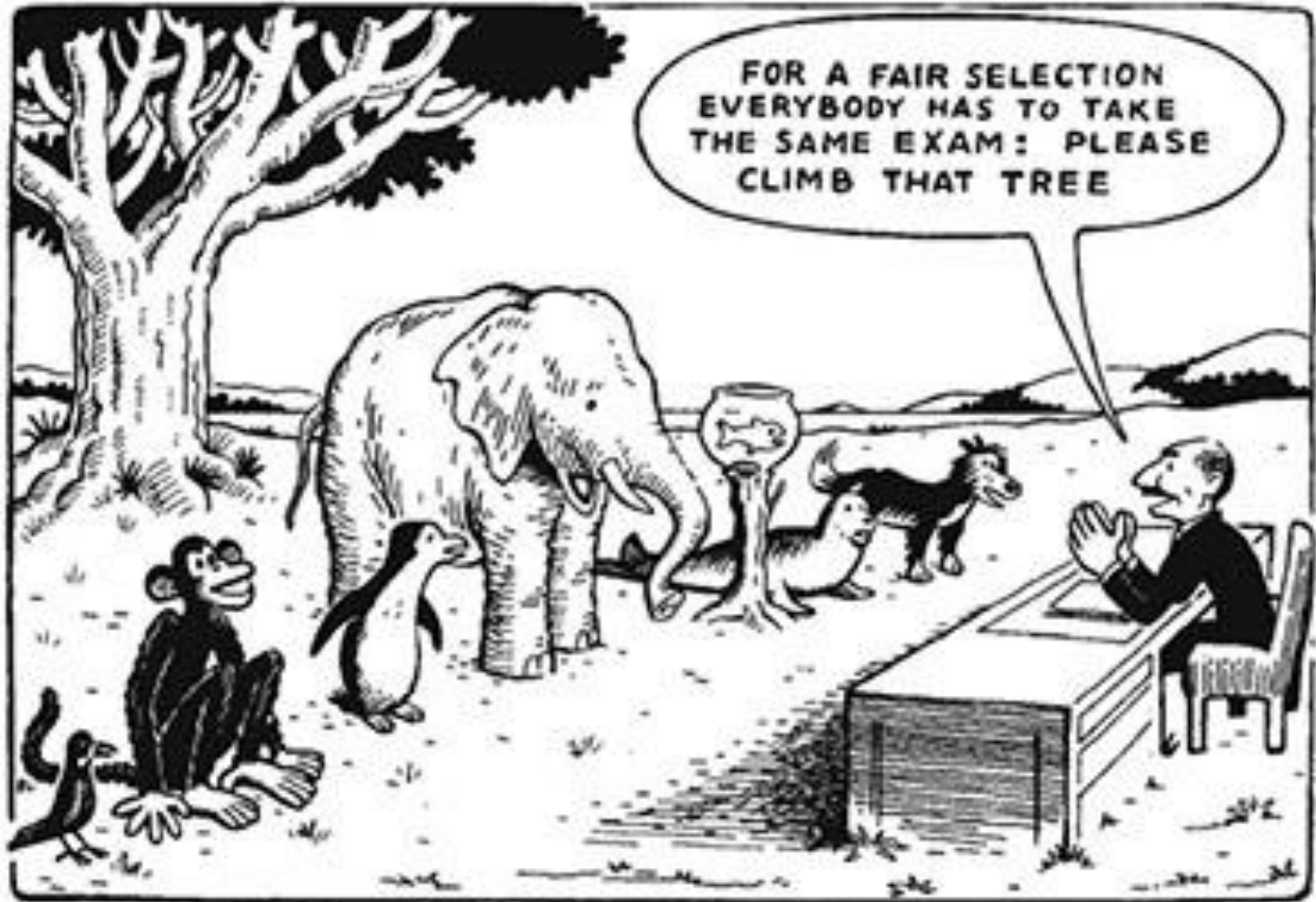


- In the future, work will be based on the principle of "adjustment": intelligent individuals able to combine education, interests and skills in order to become a sort of unipersonal multifunctional team.
- Success will depend on the ability to "adjust": to creatively develop or modify skills and knowledge

# Graduates required in today's world



# Are we measuring learning properly?

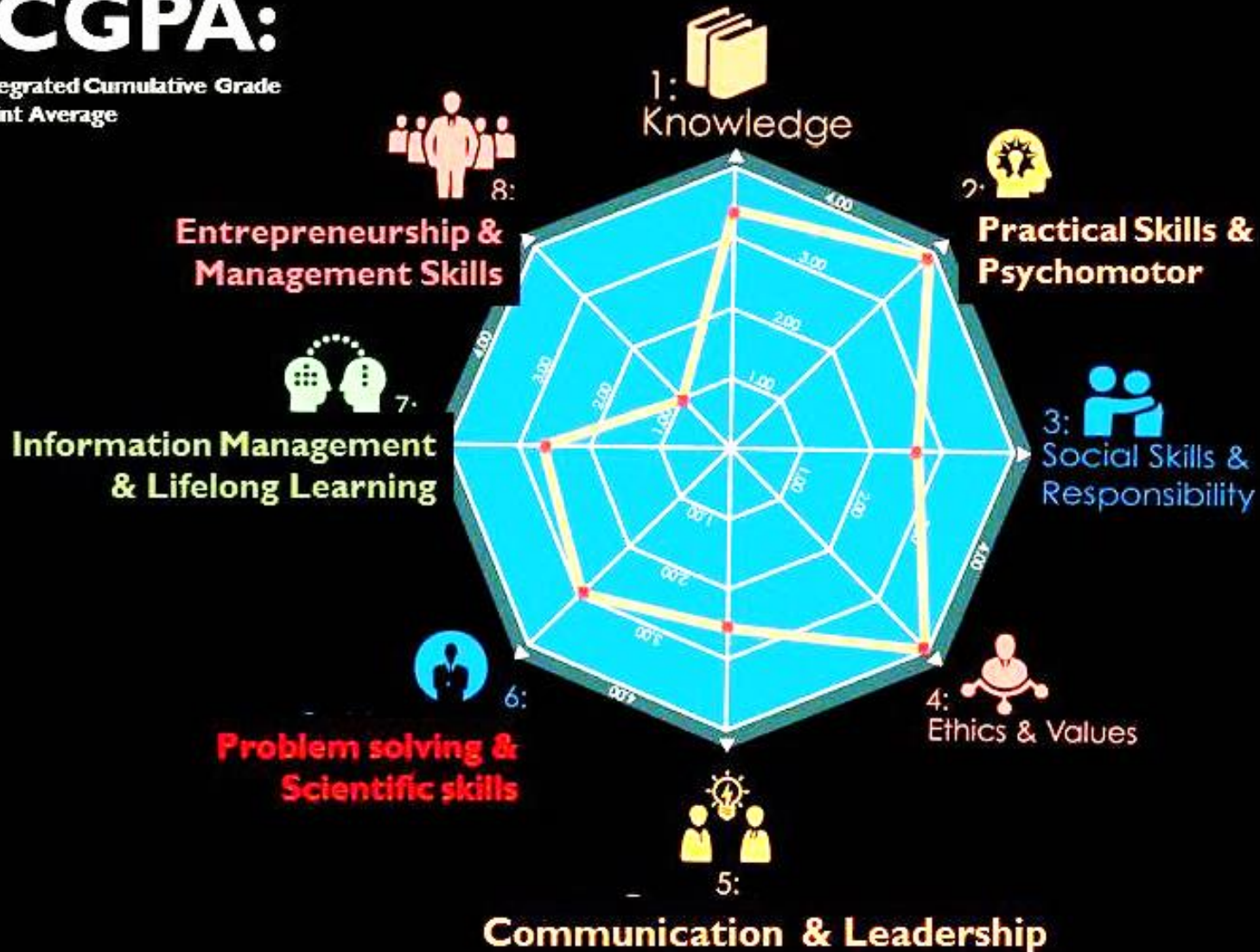




# The case of Malaysia

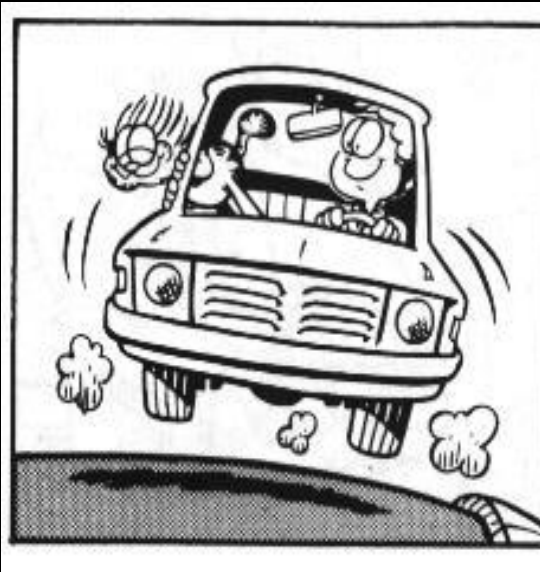
## iCGPA:

Integrated Cumulative Grade  
Point Average



# There is no magic formula...

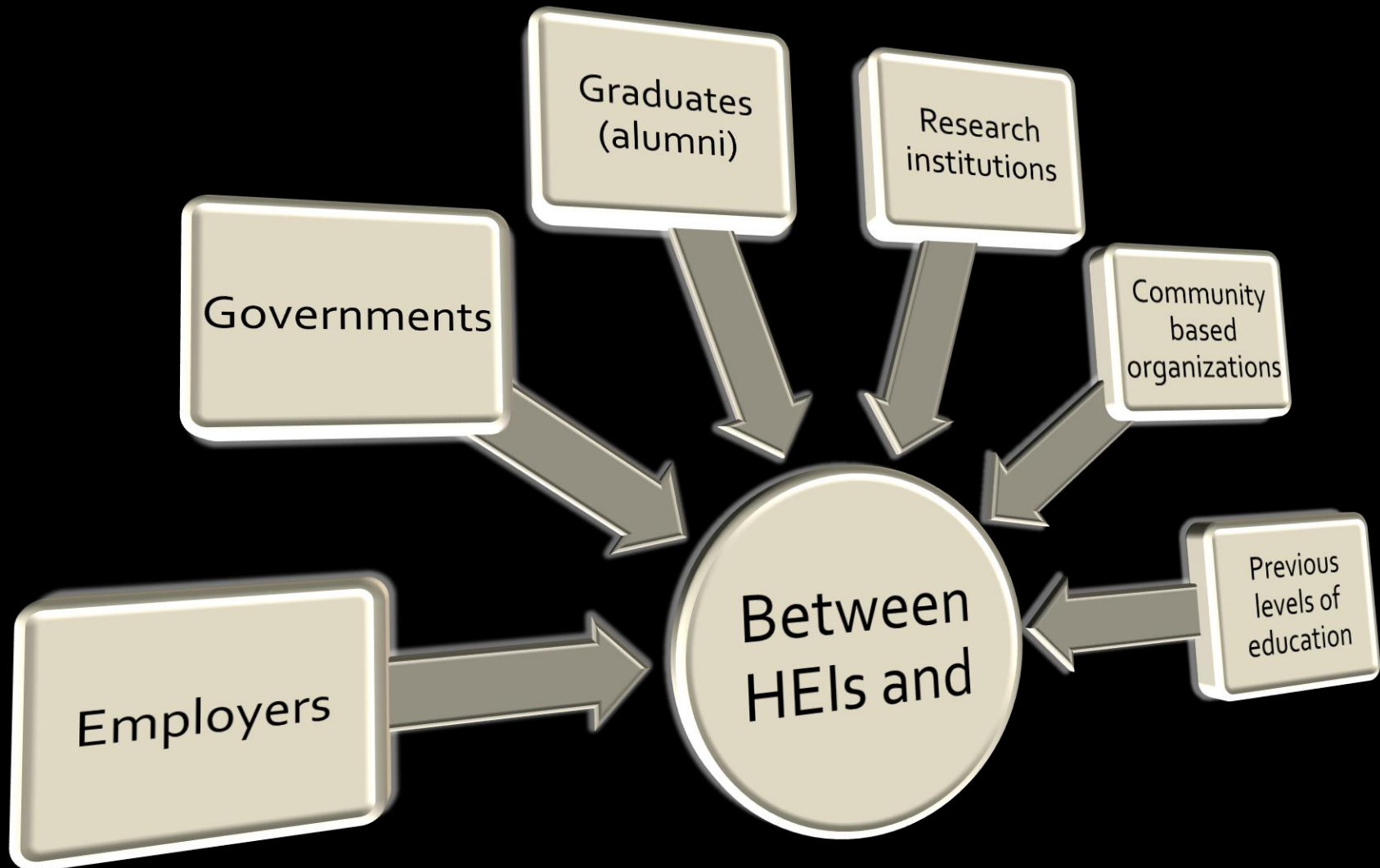
- What it may work in one case




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

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

*Some disconnects*



# Other Disconnects

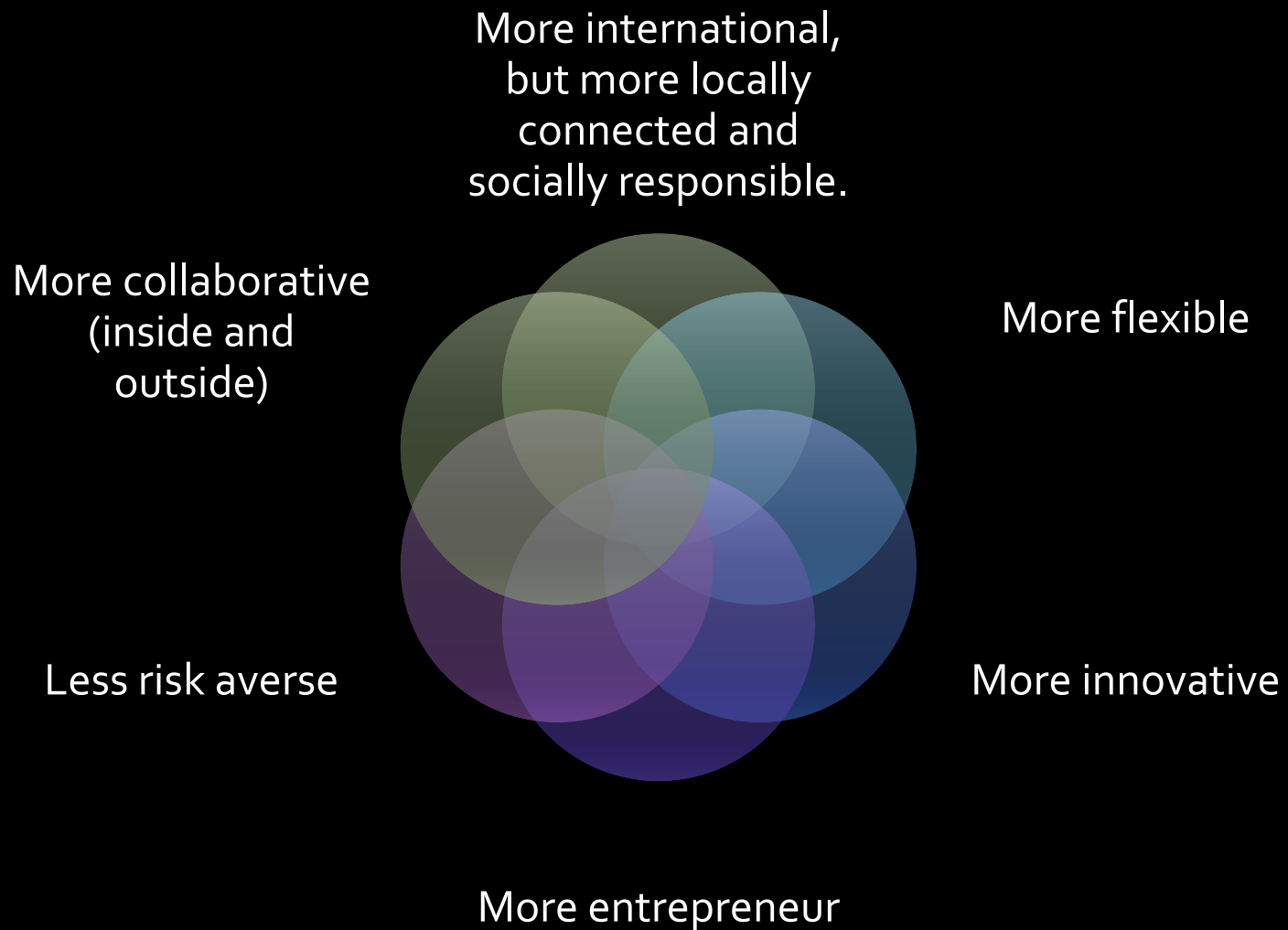


Among higher  
education  
institutions

The diagram consists of two large, light-yellow arrows pointing in opposite directions, one to the left and one to the right. They are positioned horizontally and overlap slightly in the center. The left arrow is larger and contains the text 'Among higher education institutions'. The right arrow is smaller and contains the text 'Inside higher education institutions'.

Inside higher  
education  
institutions

# Some Elements for HEIs



# The importance of collaboration



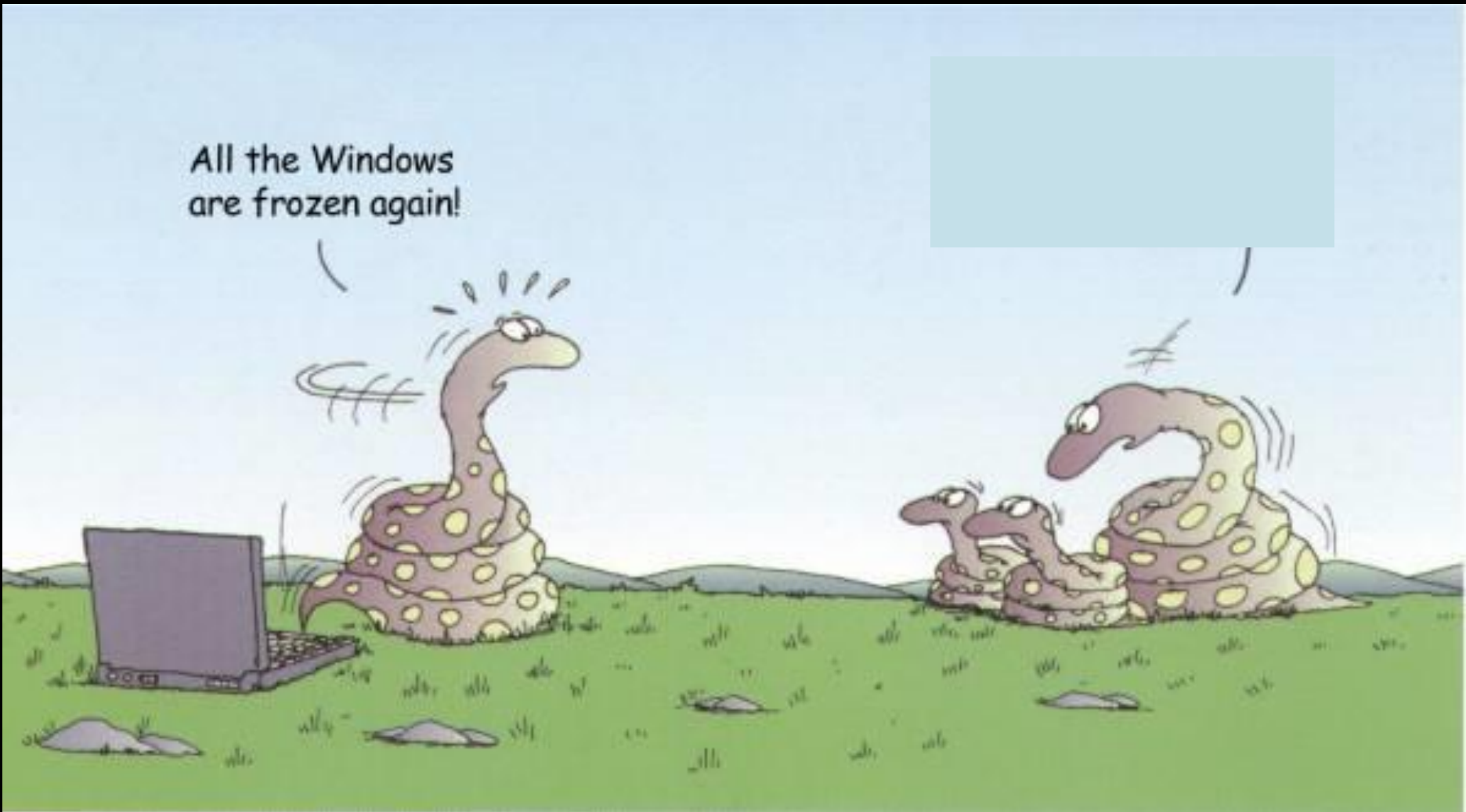






# Golden key: Everybody's contribution could make a big difference

All the Windows  
are frozen again!





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

Paul Valéry



Francisco Marmolejo  
Global Lead of Tertiary Education and Lead Education Specialist, India  
The World Bank  
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Email: [fmarmolejo@worldbank.org](mailto:fmarmolejo@worldbank.org)  
<http://www.worldbank.org/education/tertiary>

