## I INTERNATIONAL MEETING ON MANAGEMENT AND REGULATION OF HEALTH WORK





MARCH 26-28, 2018

## The International Panorama on Innovation in the Public Sector

1<sup>st</sup> International meeting on management and regulation of Health Work 26-28 Marcht 2018, Brasilia, Brazil

Gard Titlestad, Secretary General

**International Council for Open and Distance Education** 

**Member of the Governing Board** 







### Outline



- Innovation
- Innovation consequences
- Brazil
- Innovate and transform

#### Human Development Report **2016**

**Human Development for Everyone** 





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#### MCKINSEY GLOBAL INSTITUTE

JOBS LOST, JOBS GAINED: WORKFORCE TRANSITIONS IN A TIME OF AUTOMATION

DECEMBER 2017





COMMITTED TO IMPROVING THE STATE OF THE WORLD

#### **The Global Innovation Index 2017**

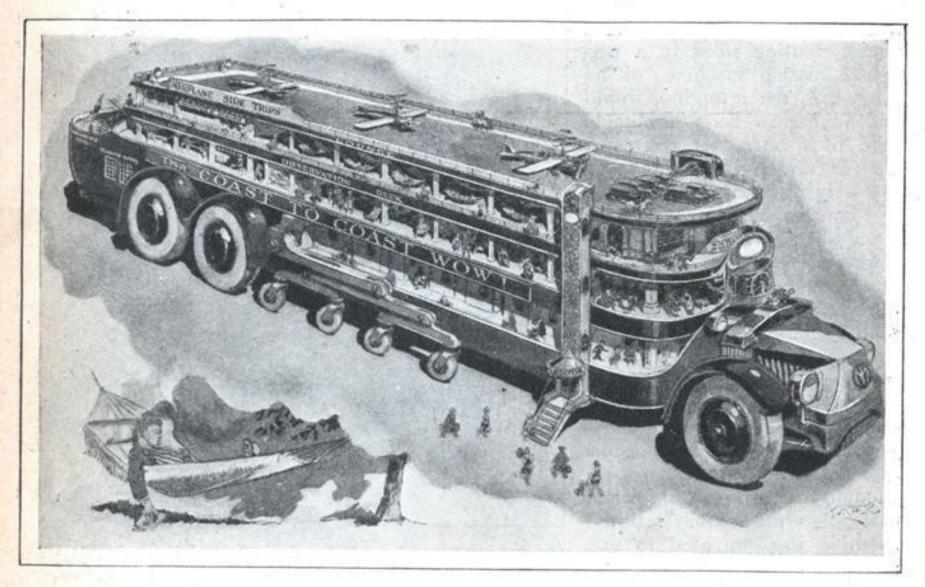
Innovation Feeding the World

TENTH EDITION





### Unique Bus of Future to Duplicate Speed of Railroads



Although still a dream, the bus with landing fields, swimming pool and hotel services is not far away.

PECENT developments in everything for trips not on the regular schedule. For

### **ICDE**



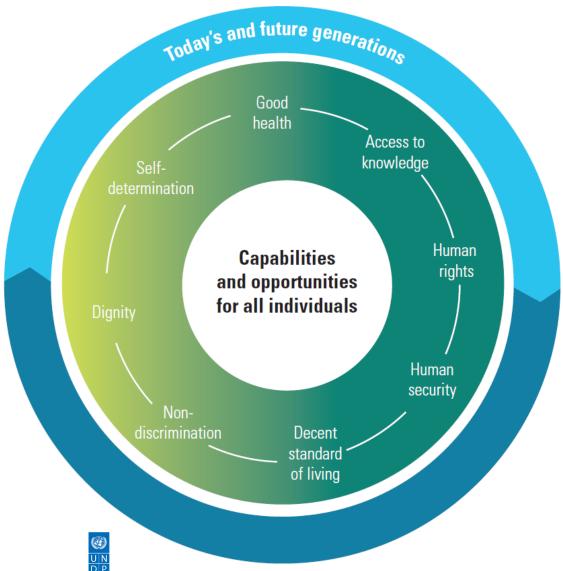




## Innovation

Why?









 On 25 September 2015, the United Nations General Assembly formally adopted the universal, integrated and transformative 2030 Agenda for Sustainable Development, along with a set of 17 Sustainable Development Goals and 169 associated targets.



















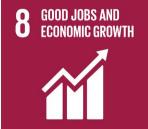
























Figure I: The Global Risks Landscape 2018





An **innovation** is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.



#### 2. Innovation

146. An **innovation** is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method inbusiness practices, workplace organisation or external relations.

#### Innovation.....



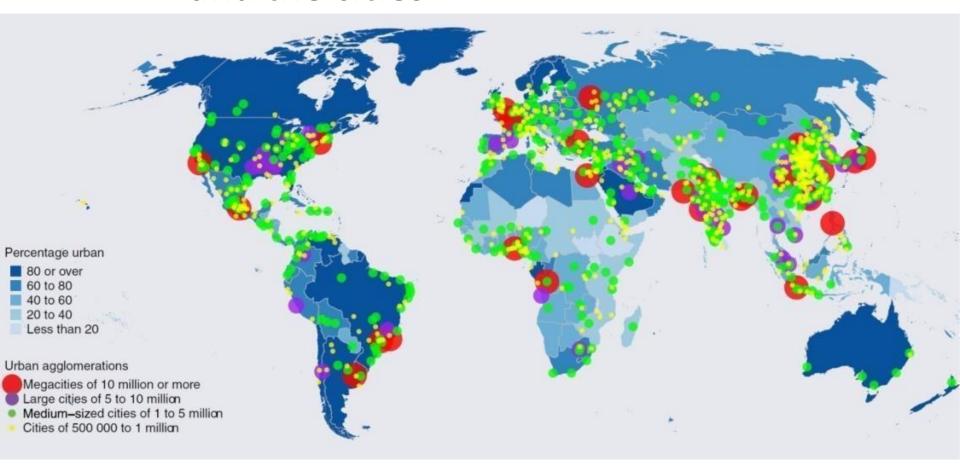
- Commercial?
- For profit?
- Not for profit?
- Public?
- Private?

### A culture of innovation

## Everywhere

#### - and the cities



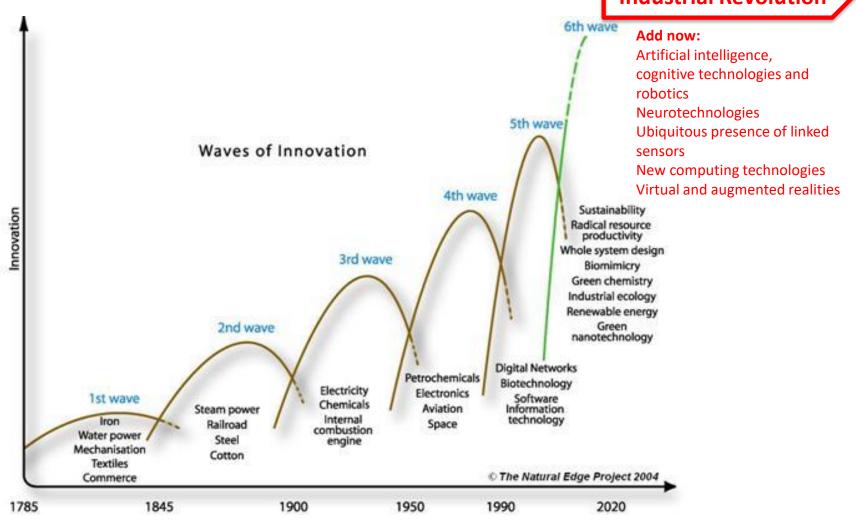


Rio de Janeiro, Brazil, is one of the largest Smart Cities in the world.

International Case Studies of Smart Cities: Rio de Janeiro, Brazil - See more at: https://publications.iadb.org/handle/11319/7727#sthash.LTP2yoCx.dpuf



### The Fourth Industrial Revolution



## 





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## ARTIFICIAL INTELLIGENCE THE NEXT DIGITAL EDONTIER?

the upcoming disruptions from AI and Io

How Artificial Intelligence will enable the fupromise of the Internet-of-Things

10 Roles For

Intelligence In

Leveraging

Artificial

Education



Al keynotes

nternational Forum on ICT and Education 2030

#### Provisional Programme

Seize digital opportunities, lead education transformation

Qingdao People's Republic of China 10-11 July 2017

The 1st floor library in the main building opens at 8.30am. The 2nd floor library in the main building and the library in the Construction and Arts building both open at 9am.

or your studies.

When is the library open?

Ask me a question about the College

**DISCUSSION PAPER** 

Artificial intelligence will transform universities. Here's how



Artificial Intelligence Becomes More Human

ence of child learning forming Al

Newsweek

The Entire Internet
Only Matched the
Capacity of the Hun

Capacity of the Human Brain in 2010

ar you...









Why Education Is the Hardest Sector of the Economy to Automate





Right now, artificial intelligence is not nearly as smart as people would like it to be.

#### MARY CUMMINGS

Director, Humans and Autonomy Lab (HAL), Duke University

## Workforce of the future

The competing forces shaping 2030



www.pwc.com/people



Augmented Intelligence



#### Today

Automating repetitive, standardised or

#### Emerging

Fundamental change in the nature of work. Humans and machines collaborate to make decisions.



Autonomous Intelligence

#### Future

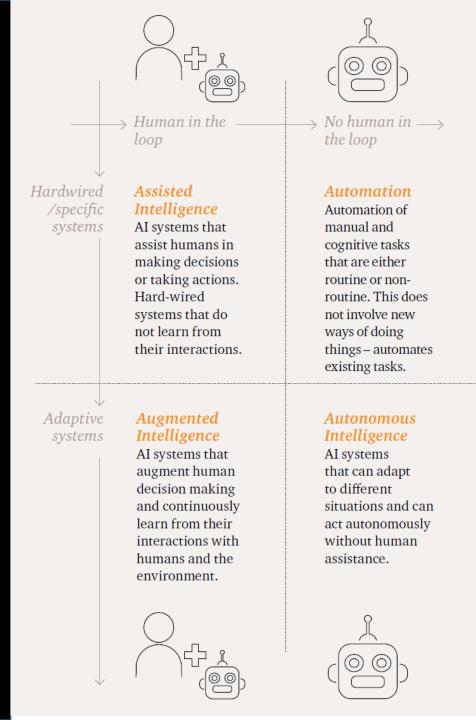
Adaptive continuous intelligent systems take over decision-making.

The future of humans at work is questioned.

Build awareness and insight

Establish relevant courses and educational offerings to build competencies

Take part in the debate on the future directions and ethics





## Consequences

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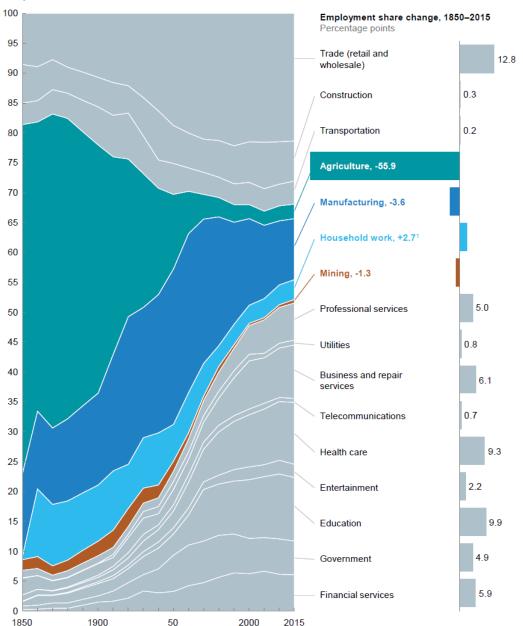
## JOBS LOST, JOBS GAINED: WORKFORCE TRANSITIONS IN A TIME OF AUTOMATION

DECEMBER 2017

Throughout history, large-scale sector employment declines have been countered by growth of new sectors that have absorbed workers

Share of total employment by sector in the United States, 1850-2015

% of jobs



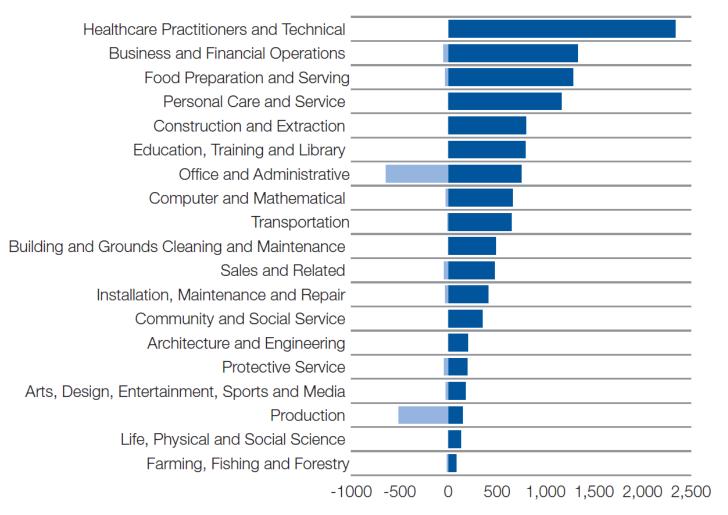
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JOBS LOST, JOBS GAINED:
WORKFORCE TRANSITIONS
IN A TIME OF AUTOMATION
DECEMBER 2017

The Bureau of Labor Statistics projections predict that, over the period up to 2026, the US labour market will see a structural employment decline of 1.4 million redundant jobs, against structural employment growth of 12.4

million new jobs

### Figure 2: Projected structural changes in the US job market by 2026



Job gain/decline (thousands)

Source data: Burning Glass Technologies and US Bureau of Labor Statistics.

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#### **JOBS LOST, JOBS GAINED: WORKFORCE TRANSITIONS** IN A TIME OF AUTOMATION

DECEMBER 2017

Automation will bring big shifts to the world of work, as Al and robotics change or replace some jobs, while others are created. Millions of people worldwide may need to switch occupations and upgrade skills.

#### Scenarios for automation adoption, 2016-30

Under midpoint scenario, % of work hours with potential to be automated



24

United States Germany India China

16

2016-30 ranged

Million FTEs. low-high

catalysts,

Scenarios for

labor demand

from selected

Rising incomes

Health care for aging populations

165-300 555-890

Investment in infrastructure

Investment in buildings

Investment

in energy

scenario

390-590

Trendline Step-up Potential scenario demand for FTEs

Technology development

Market for previously unpaid work

midpoint automation scenario: 400M

Workers displaced under

Jobs of the future: some occupations will grow, others will decline, and new ones we cannot envision will be created

23



Global

15























Unpredictable physical

Customer interaction Predictable physical

Office Support

**Professionals** 

Care

providers

**Builders** 

Managers and executives Educators

**Professionals** 

Tech Creatives

Advanced







Developing





















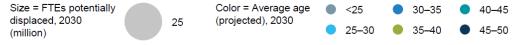


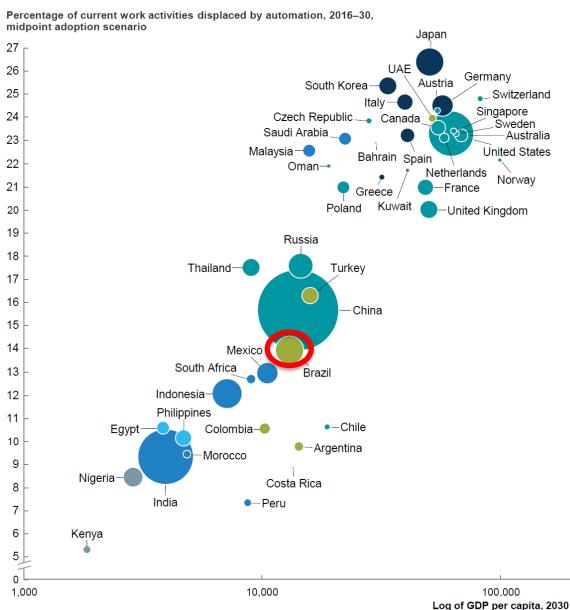
#### MCKINSEY GLOBAL INSTITUTE

## JOBS LOST, JOBS GAINED: WORKFORCE TRANSITIONS IN A TIME OF AUTOMATION

DECEMBER 2017







2010 real \$

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## JOBS LOST, JOBS GAINED: WORKFORCE TRANSITIONS IN A TIME OF AUTOMATION

DECEMBER 2017

#### Each of our labor demand catalysts creates different types of jobs

US top five growing occupations by catalyst, trendline to step-up scenario, 2016–301 Thousand

	Retail salespersons	1,269
Rising	Cashiers	896
incomes: consumer	Combined food preparation and serving workers, including fast food	547
goods	Waiters and waitresses	434
	First-line supervisors of retail sales workers	353
	Registered nurses	1,304
Rising	Nursing assistants	701
incomes and aging:	Personal care aides	476
health care	Home health aides	364
	Licensed practical and licensed vocational nurses	329
	Construction laborers	232–760
investment:	Carpenters	152–497
real estate and infra-	Electricians	128–418
structure <sup>2</sup>	First-line supervisors of construction trades and extraction workers	116–378
	Plumbers, pipefitters, and steamfitters	85–277
	Software developers, applications	289
Business	Software developers, systems software	111
investment in	Computer systems analysts	108
technology	Computer user support specialists	94
	Computer programmers	84
	Teacher assistants	368
Rising	Elementary school teachers, except special education	113
incomes:	Education administrators, elementary and secondary school	83
education	Secondary school teachers, except special and career/technical education	70
	Education administrators, postsecondary	46
	Construction laborers	31–86
Energy	Insulation workers, floor, ceiling, and wall	29–80
transitions	Carpenters	28–80
and efficiency	Construction managers	23–65
	First-line supervisors of construction trades and extraction workers	23–62
	Childcare workers	0-858
Profession-	Nursing assistants	0–638
alizing previously	Preschool teachers, except special education	0-535
unpaid work	Janitors and cleaners, except maids and housekeeping cleaners	0–518
	Home health aides	0–375



## The Learners





Trump v the spooks

The stain of Guantánamo

Pop stars and patronage in Congo

Inflation's welcome return

## Lifelong learning

How to survive in the age of automation

A SPECIAL REPORT





# Why high on agenda?

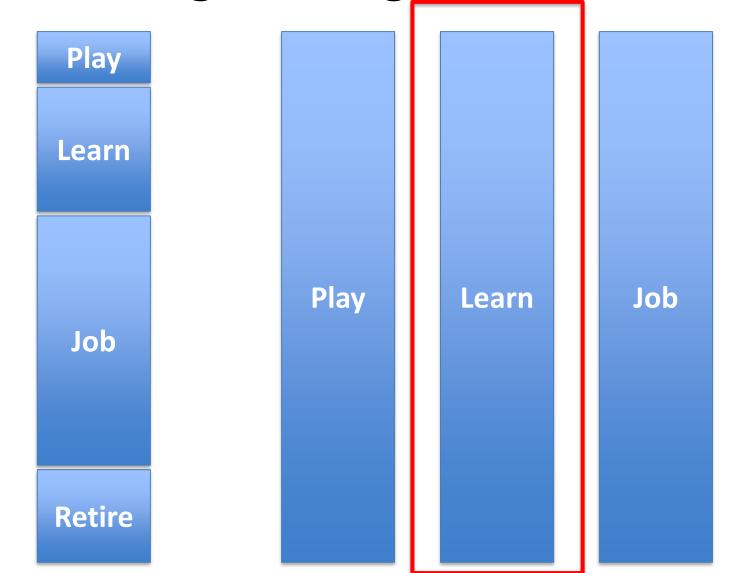
Digitalisation and technological development

Demographic development

Changing working life as consequence of globalisation

## The new pradigm of lifelong learning







### Top 10 skills

ın	2020
1.	Complex Problem Solving
2.	Critical Thinking
3.	Creativity
4.	People Management
5.	Coordinating with Others
6.	Emotional Intelligence
7.	Judgment and Decision Making
8.	Service Orientation
9.	Negotiation
10.	Cognitive Flexibility

#### in 2015

- Complex Problem Solving
- 2. Coordinating with Others
- 3. People Management
- 4. Critical Thinking
- Negotiation
- 6. Quality Control
- 7. Service Orientation
- Judgment and Decision Making
- Active Listening
- Creativity



# Latin America at a crossroads

Nearly two decades into the digital revolution, Latin America finds itself at a crossroads. More and more traditional jobs are disappearing and the global economy is increasingly run on knowledge and skills that require significant investment in education and digital infrastructure. At the same time, the Fourth Industrial Revolution offers the prospect of harnessing data and digital technologies to speed up modernization and the opportunity to strengthen Latin American economies and governments by using data.





# Brazil State of play and challenges



Impressive progress has been made in the past 26 years; with significant human development gains in all regions and major progress among least developed countries. Since 1990, the global Human Development Index (HDI) value has increased by more than 20 percent and that of the least developed countries by more than 45 percent.

Human Development Report **2016** 



**Human Development for Everyone** 

And there are encouraging signs of change in the region that must not be overlooked. For a start, most Ibero-American countries have seen good progress in increasing school enrolment, resulting in improvements of up to 24% in Brazil, Colombia and Mexico between 2003 and 2015. More importantly, countries like Brazil, Colombia and Peru have been able to significantly increase the share of children getting access to secondary education – while still improving overall learning outcomes. Perhaps most intriguingly, in most countries in the region we find educational excellence among some of the most disadvantaged schools.





Amidst progress, expoverty and exclusion among some groups persist in Latin America and the Caribbeantreme, Report finds Development gaps for women, indigenous peoples, remote dwellers and other groups set to widen unless deep-rooted development barriers, including violence, discrimination and unequal political participation, are tackled.

Human Development Report **2016** 

U N D P

**Human Development for Everyone** 

Over the past two decades, strong growth combined with remarkable social progress has made Brazil one of the world's leading economies. However, Brazil remains a highly unequal country, recent corruption allegations have revealed significant challenges in economic governance and the situation of its fiscal accounts is challenging with high and rising public debt (OECD, 2018).

However, Brazil remains one of the most unequal countries in the world. Half of the population receives 10% of total household incomes, while other half holds 90%. Severe inequalities continue to put women, racial minorities and youths at a disadvantage. Male workers are paid 50% more than women, a gap that is 10 percentage points higher than the OECD average. Women are also more likely to have informal employment. Poverty is highest among children and unemployment among youths is more than twice the overall average. These inequalities tend to feed off of each other, considerably limiting the ability of part of the population to fulfil their productive potential and improve their lives. Brazil



#### Human Development Report **2016**

#### **Human Development for Everyone**

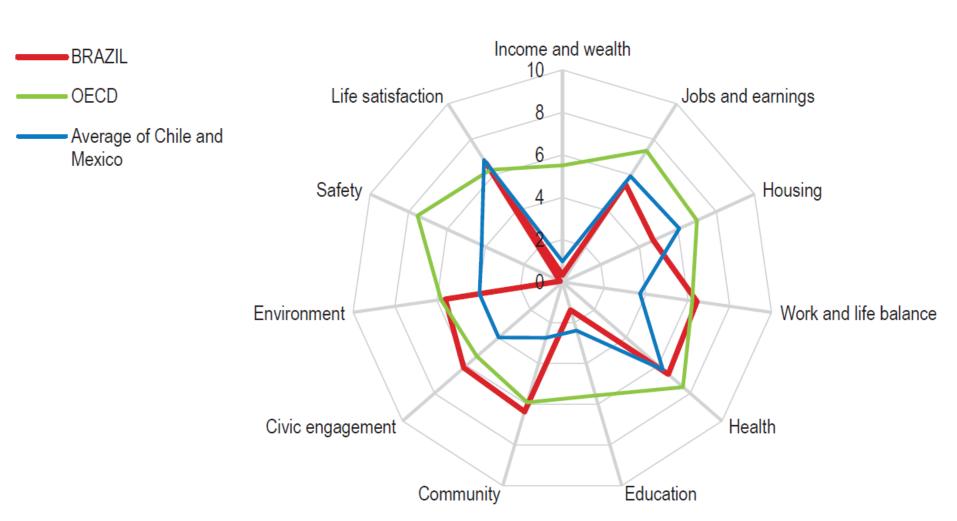




	Table 1. Human Development Index and its components									
HDI rank	Country	Human Development Index (HDI) Value	Life expectancy at birth (years)	Expected years of schooling (years)		Mean years of schooling (years)		Gross national income (GNI) per capita (2011 PPP \$)	GNI per capita rank minus HDI rank	HDI rank
		2015	2015	2015	а	2015	а	2015	2015	2014
	VERY HIGH HUMAN DEVELOPMENT									
1	Norway	0.949	81.7	17.7		12.7		67,614	5	1
2	Australia	0.939	82.5	20.4	b	13.2		42,822	19	3
2	Switzerland	0.939	83.1	16.0		13.4		56,364	7	2
4	Germany	0.926	81.1	17.1		13.2	С	45,000	13	4
5	Denmark	0.925	80.4	19.2	b	12.7		44,519	13	6
5	Singapore	0.925	83.2	15.4	d	11.6		78,162 <sup>e</sup>	-3	4
52 52	HIGH HUMAN DEVELOPMENT Belarus Oman	0.796 0.796	71.5 77.0	15.7 13.7		12.0 8.1	m	15,629 34,402	19 -21	51 53
54	Barbados	0.795	75.8	15.3		10.5	n	14,952	20	54
54	Uruguay	0.795	77.4	15.5		8.6	+	19,148	8	54
56	Bulgaria	0.794	74.3	15.0		10.8	С	16,261	13	57
56	Kazakhstan	0.794	69.6	15.0		11.7	f	22,093	-3	56
								·		
77	Mexico	0.762	77.0	13.3		8.6		16,383	-9	77
78	Azerbaijan	0.759	70.9	12.7		11.2		16,413	-12	77
79	Brazil	0.754	74.7	15.2		7.8		14,145	-1	79
79	Grenada	0.754	73.6	15.8		8.6	I.	11,502	13	80
81	Bosnia and Herzegovina	0.750	76.6	14.2		9.0	n	10,091	22	82
82	The former Yugoslav Republic of Maced		75.5	12.9		9.4	С	12,405	5	83
83	Algeria	0.745	75.0	14.4		7.8	C	13,533	-1	84

Figure 1. Well-being indicators

OECD Better life index





	Economy	Score <sup>1</sup>	Prev. <sup>2</sup>	Trend <sup>3</sup>
1	Switzerland	5.86	1	•••••
2	United States	5.85	3	•••••
3	Singapore	5.71	2	
4	Netherlands	5.66	4	
5	Germany	5.65	5	• • • • • • • • •
6	Hong Kong SAR	5.53	9	
78	Serbia	4.14	90	
79	Tajikistan	4.14	77	
80	Brazil	4.14	81	and the same of th
81	Ukraine	4.11	85	
82	Bhutan	4.10	97	
83	Trinidad and Tobago	4.09	94	





Insight Report

The Global Competitiveness Report 2017–2018



# Ranking



### The Global Competitiveness Report

2016-2017

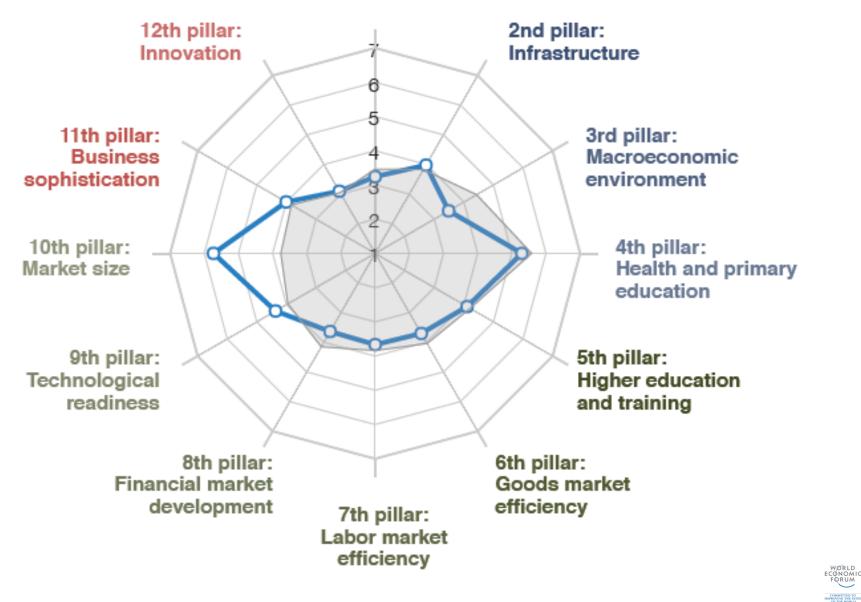
	Economy	Score <sup>1</sup>	Prev. <sup>2</sup>	Trend <sup>3</sup>
1	Switzerland	5.81	1	
2	Singapore	5.72	2	
3	United States	5.70	3	•
4	Netherlands	5.57	5	•
5	Germany	5.57	4	
79	Armenia	4.07	82	
80	Albania	4.06	93	
81	Brazil	4.06	75	
82	Montenegro	4.05	70	,,,,,,,,
83	Cyprus	4.04	65	



Insight Repo

The Global Competitiveness Report 2016–2017

## 1st pillar: Institutions







# **Brazil**

80th/137

The Global Competitiveness Index 2017-2018 edition

WORLD ECONOMIC FORUM

2017-18

4.1

80 / 137

Key indicators, 2016		Source: International Monetary Fund; World	Economic Outlook Database (April 2017)
Population millions	206.1	GDP per capita US\$	8,726.9
GDP US\$ billions	1,798.6	GDP (PPP) % world GDP	2.62

2012-13

48 / 144

4.4

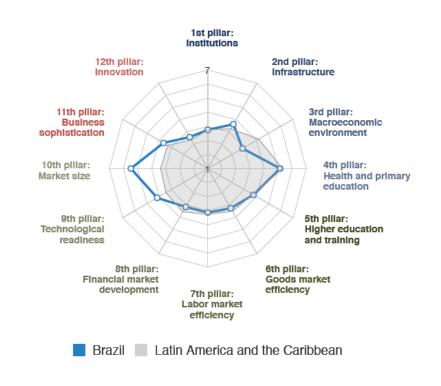
2013-14

56 / 148

4.3

#### Performance overview

Index Component	Rank/137	Score (1-7)	Trend	Distance from best	Edition
Global Competitiveness Index	80	4.1	~		Rank
Subindex A: Basic requirements	104	4.1	~		Score
1st pillar: Institutions	109	3.4	~		
↑↑ 2nd pillar: Infrastructure	73	4.1			
	124	3.4	_		
3 4th pillar: Health and primary education	96	5.4	~		
Subindex B: Efficiency enhancers	60	4.3	~		
🥯 5th pillar: Higher education and training	79	4.2	~		
	122	3.8	_		
7th pillar: Labor market efficiency	114	3.7	_		
8th pillar: Financial market development	92	3.7	_		
🖇 9th pillar: Technological readiness	55	4.6			
$\frac{\kappa_{\beta}}{\sqrt{2}}$ 10th pillar: Market size	10	5.7	_		
Subindex C: Innovation and sophistication factors	65	3.7	~		
→ 11th pillar: Business sophistication	56	4.1	~		
** 12th pillar: Innovation	85	3.2	_		



2014-15

4.3

57 / 144

2015-16

75 / 140

4.1

2016-17

81 / 138

4.1

# Performance overview

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ℳ 11th pillar: Business sophistication	56	4.1	~	
12th pillar: Innovation	85	3.2	_	

## Figure 4: Most problematic factors for doing business in Brazil

Source: World Economic Forum, Executive Opinion Survey 2017.

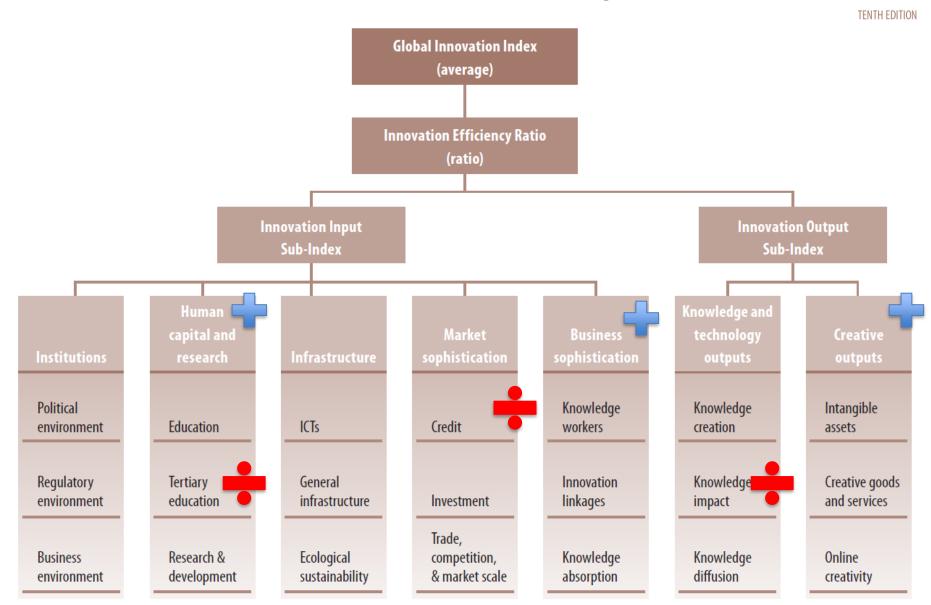
	Score	0	2	4	6	8	10	12	14	16	18	20
1 Tax rates	18.6											
2 Restrictive labour regulations	12.5											
3 Corruption	12.3											
4 Inefficient government bureaucracy	12.0											
5 Inadequate supply of infrastructure	10.4											
6 Policy instability	7.4											
7 Tax regulations	5.4											
8 Access to financing	5.2											
9 Government instability/coups	4.2											
10 Inadequately educated workforce	4.0											
11 Inflation	2.1											
12 Crime and theft	1.9											
13 Insufficient capacity to innovate	1.8											
14 Poor public health	1.1											
15 Poor work ethic in national labor forc	e 1.1											
16 Foreign currency regulations	0.1											

	Score
1 Tax rates	18.6
2 Restrictive labour regulations	12.5
3 Corruption	12.3



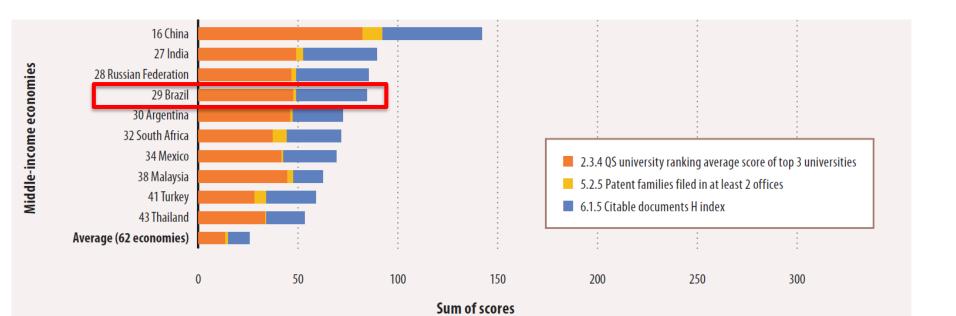
# **The Global Innovation Index 2017**

Innovation Feeding the World



### **Global Innovation Index 2017 rankings**

67.69 63.82	1	HI	_					
63.82		III	1	EUR	1	0.95	2	
03.02	2	HI	2	EUR	2	0.83	12	
63.36	3	HI	3	EUR	3	0.93	4	
61.40	4	HI	4	NAC	1	0.78	21	
60.89	5	HI	5	EUR	4	0.78	20	
1								
i					i i			
i i					i i			
34.53	67	Н	45	LCN	(	6 0.59		82
34,39	68	UM	17	NAWA	1(	0.63		60
33.10	69	UM	18	LCN		7 0.52		99
32.90	70	UM	19	LCN		8 0.49	1	06
32.89	71	HI	46	SEAO	1.	2 0.34	1	24
32.72	72	LM	7	NAWA	1	1 0.61		71
32.48	73	LM	8	SEAO	1:	3 0.65		55
	61.40 60.89 I I 34.53 34.39 33.10 32.90 32.89 32.72	61.40 4 60.89 5	61.40 4 HI 60.89 5 HI   1 1 34.53 67 HI 34.39 68 UM 33.10 69 UM 32.90 70 UM 32.89 71 HI 32.72 72 LM	61.40 4 HI 4 60.89 5 HI 5  1 1 34.53 67 HI 45 34.39 68 UM 17 33.10 69 UM 18 32.90 70 UM 19 32.89 71 HI 46 32.72 72 LM 7	61.40 4 HI 4 NAC 60.89 5 HI 5 EUR  34.53 67 HI 45 LCN 34.39 68 UM 17 NAWA 33.10 69 UM 18 LCN 32.90 70 UM 19 LCN 32.89 71 HI 46 SEAO 32.72 72 LM 7 NAWA	61.40	61.40	61.40



# **The Global Innovation Index 2017**

Innovation Feeding the World

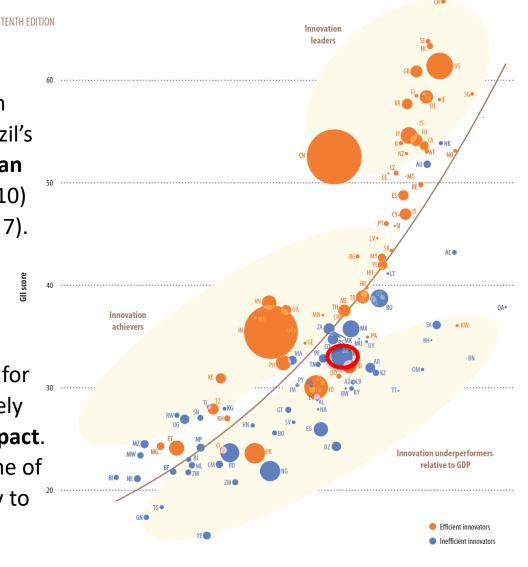
# I AND

# Plus

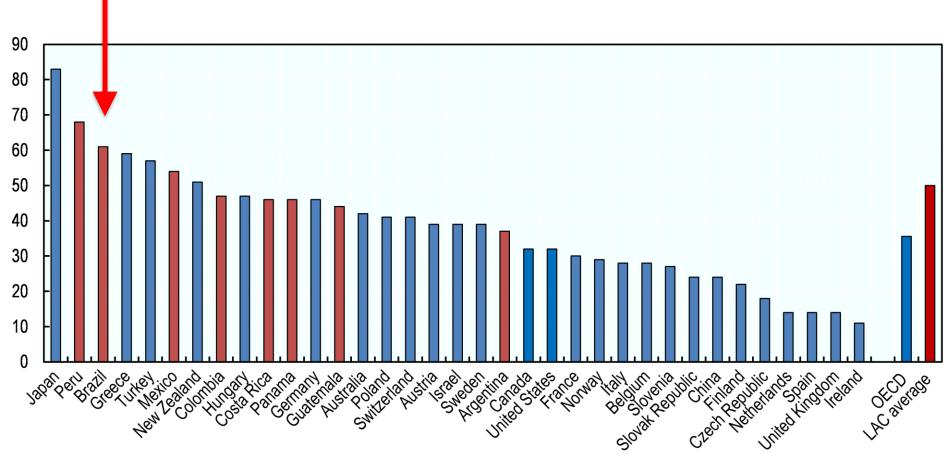
Brazil's strongest pillar ranking is in Business sophistication (43<sup>rd</sup>). Brazil's biggest improvements are in Human capital and research (50th, up by 10) and Creative outputs (83rd, up by 7).

# **Minus**

**Tertiary education** still have room for improvement, Brazil is also relatively weak in **Credit** and **Knowledge impact**. Persistence will be needed in a time of political and economic uncertainty to benefit from the economic uptick.







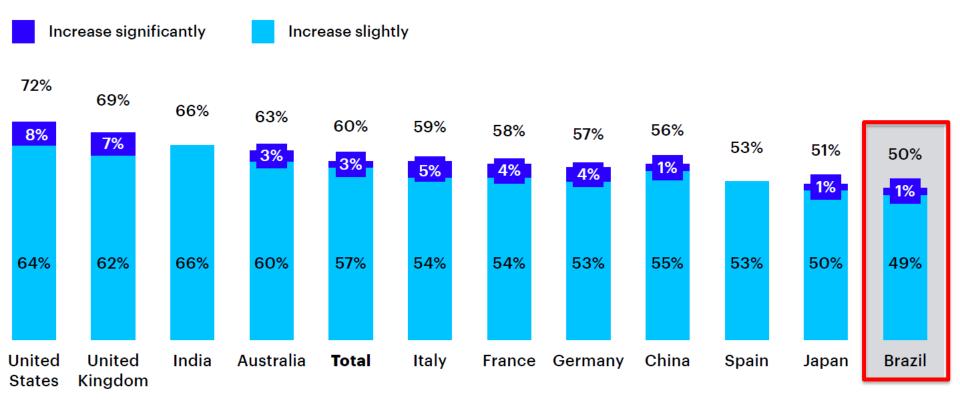
Skills shortage in Latin America and OECD countries (Percentage of formal firms experiencing difficulty filling jobs, 2015)

Image: Manpower Group



# CONCERN OVER THE SKILLS GAP IS NOT TRANSLATING INTO INVESTMENTS IN TRAINING

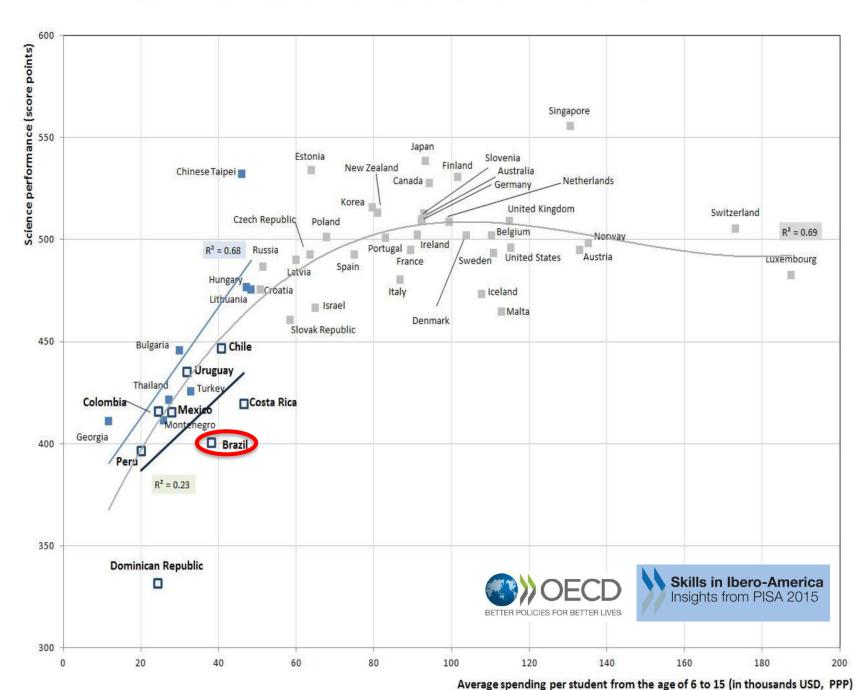
Considering the recent advances in intelligent technologies, how does your organization plan to change the proportion of investment in training and reskilling programs in the next 3 years?



Source: Accenture, 2018. Survey of 1,201 C-level business executives



Figure 3.1. Spending per student from the age of 6 to 15 and science performance





# Brazil

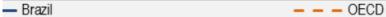


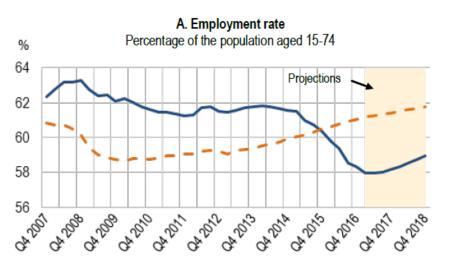
Insight Report

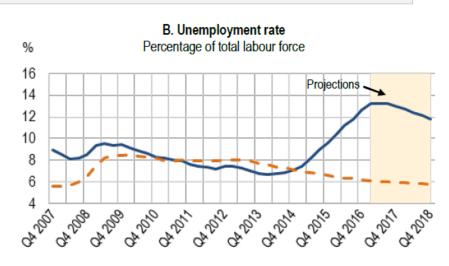
## The Global Gender Gap Report 2016

		2016		2006
	rank	score	rank	score
Global Gender Gap Index	79	0.687	67	0.654
Economic participation and opportunity	91	0.640	63	0.604
Educational attainment	42	0.998	74	0.972
Health and survival	1	0.980	1	0.980
Political empowerment	86	0.132	86	0.061
rank out of	144		115	

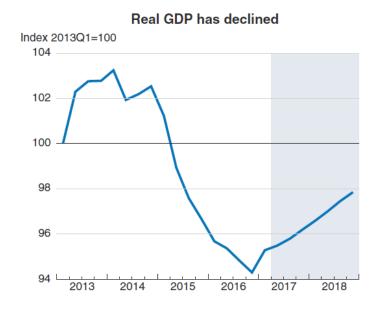
### Labour market developments in Brazil

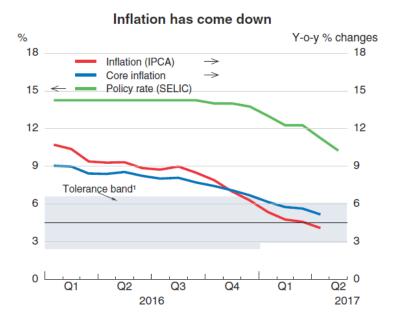






#### Brazil







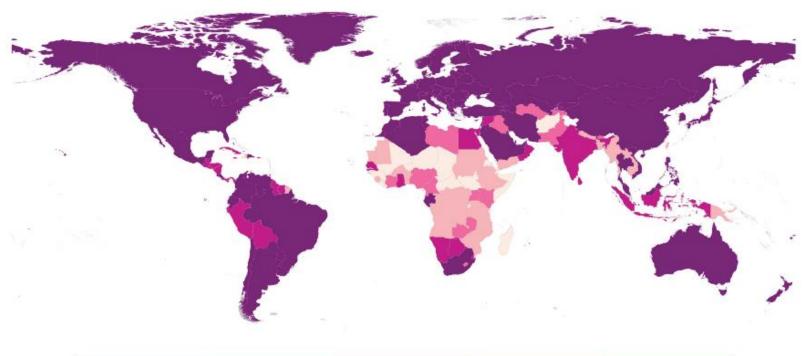
# **Brazil and the**

# current Dig

change



# Proportion of youth (15-24) using the Internet, 2017\*

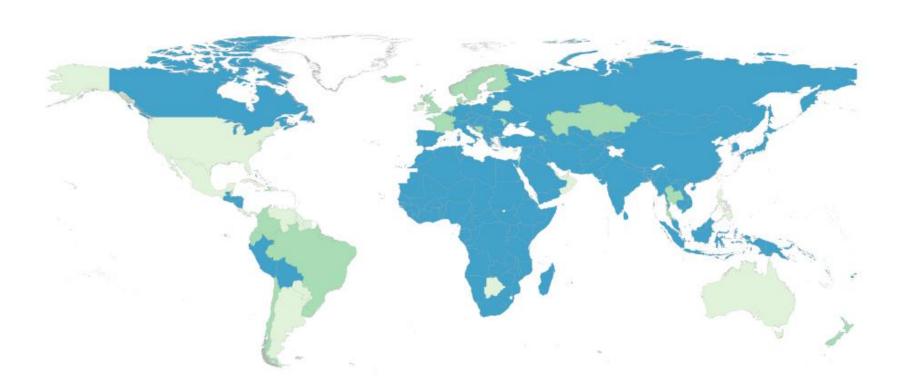


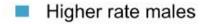
ICT
FACTS AND
FIGURES
2017





## Proportion of individuals using the Internet, by gender, 2017\*







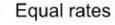
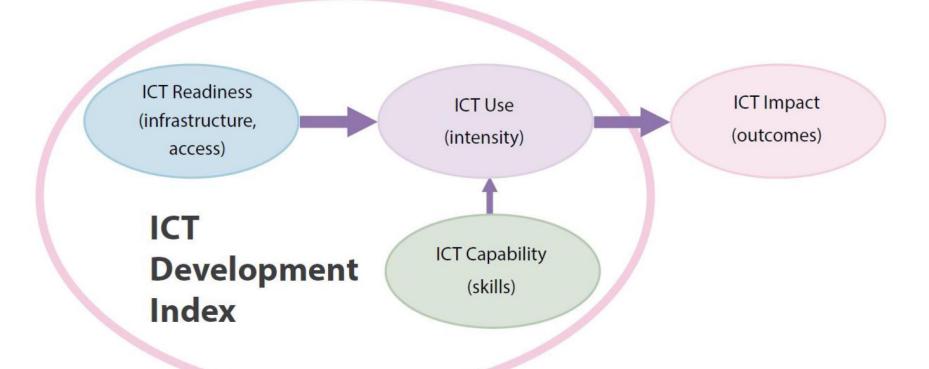








Figure 1.1: Three stages in the evolution towards an information society

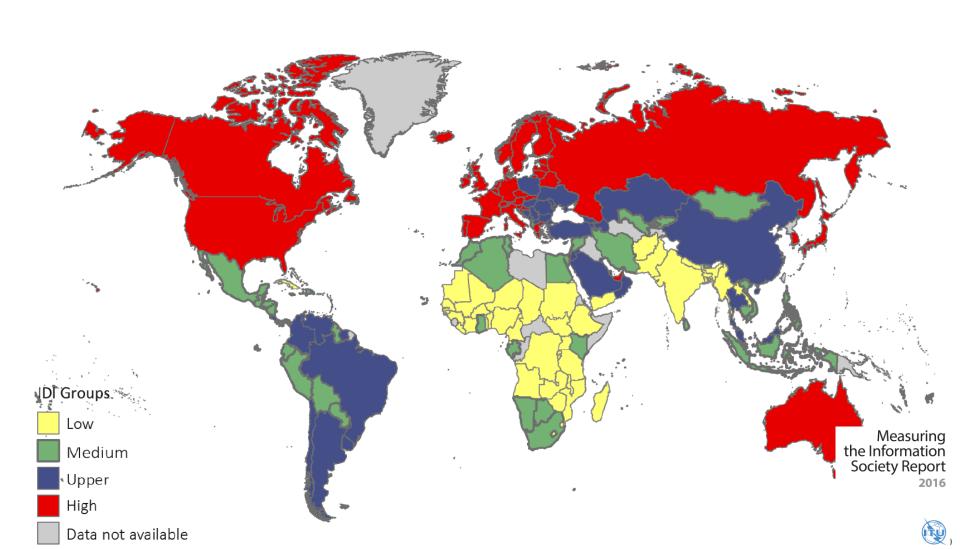


Measuring the Information Society Report





Figure 1.3: Geographical distribution of IDI quartiles, 2016







Population: 203,657,210 Population density: 24.87

GNI per capita: 9,850

Region: The Americas, Developing





IDI 2016 Rank

63

65

IDI 2016 Value

IDI 2015 Value

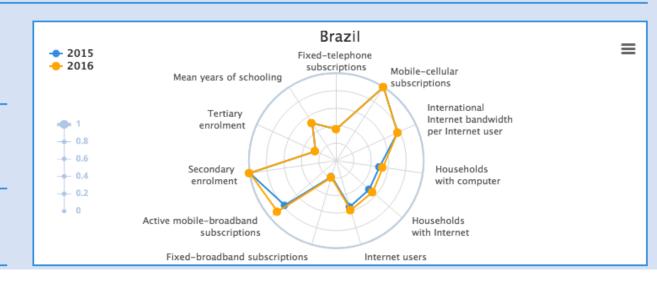
**IDI 2015 Rank** 

5.99

5.72

Regional IDI 2015 Rank

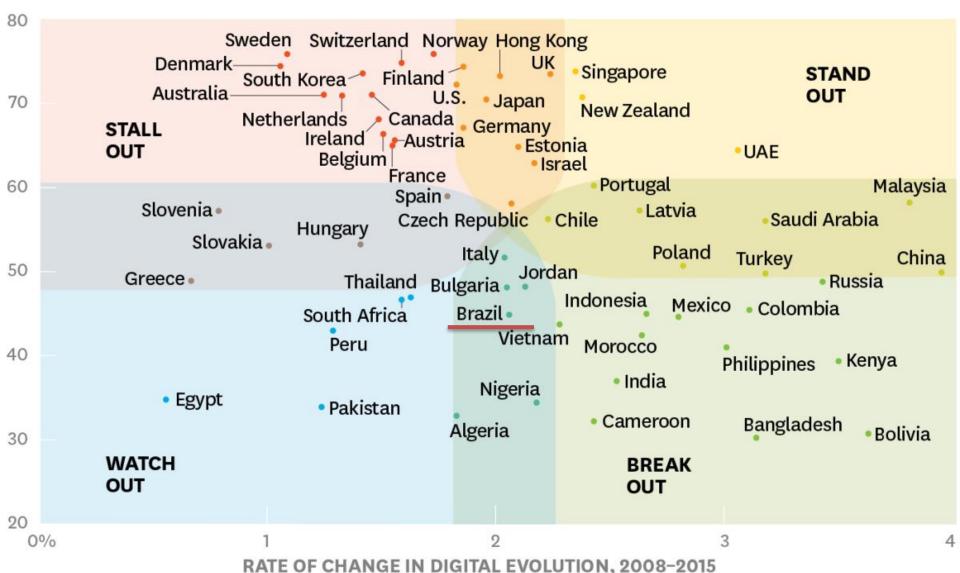
9



# Plotting the Digital Evolution Index, 2017

Where the digital economy is moving the fastest, and where it's in trouble.

### HOW COUNTRIES SCORED ACROSS FOUR DRIVERS ON THE DIGITAL EVOLUTION INDEX (OUT OF 100)





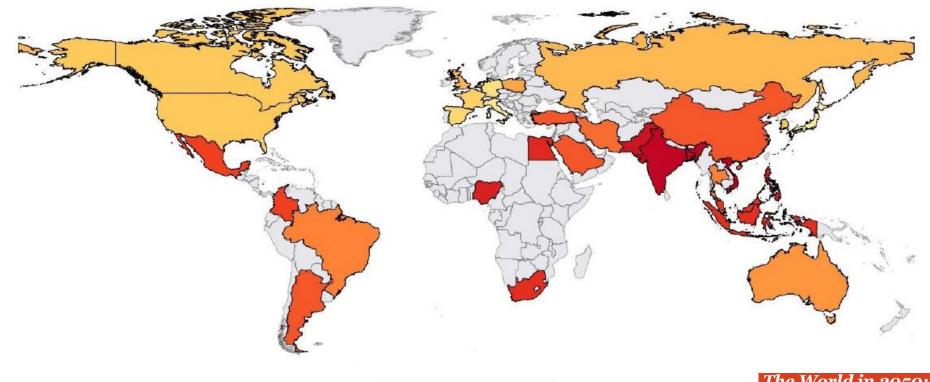
# The future

# 3.2 Projected real GDP growth

The top 15 fastest growing large economies over the next 34 years are all developing and emerging market economies, with 9 being from South and Southeast Asia, as shown in Map 3. This is in line with established theory of economic convergence that, other things being equal, a low initial level of economic development provides more opportunities for catch-up with higher income countries.

Map 3: Average annual real GDP growth rate, 2016-2050

< 1%



> 5%

Source: PwC analysis

The World in 2050: How will the global economic order change?

February 2017

www.pwc.com

# Emerging markets will dominate the world's top 10 economies in 2050 (GDP at PPPs)

2016	2050	
1	1	China
2	2	India
3	3	US
4	4	Indonesia
5	5	Brazil
6	6	Russia
7	7	Мехісо
8	8	Japan
9	9	Germany
10	10	UK
	1 2 3 4 5 6 7 8	1       1         2       2         3       3         4       4         5       5         6       6         7       7         8       8         9       9

India, 3
Japan, 4
Germany, 5
Russia, 6
Brazil, 7
Indonesia, 8
United Kingdom, 9
France, 10
Mexico, 11

The World in 2050:
How will the global economic order change?

February 2017

WWW. PWC. COM

2030

2050
China, 1

India, 2

Japan, 8

Germany, 9 United Kingdom, 10

United States, 3 Indonesia, 4

Figure 2: Projected GDP rankings (at PPPs)

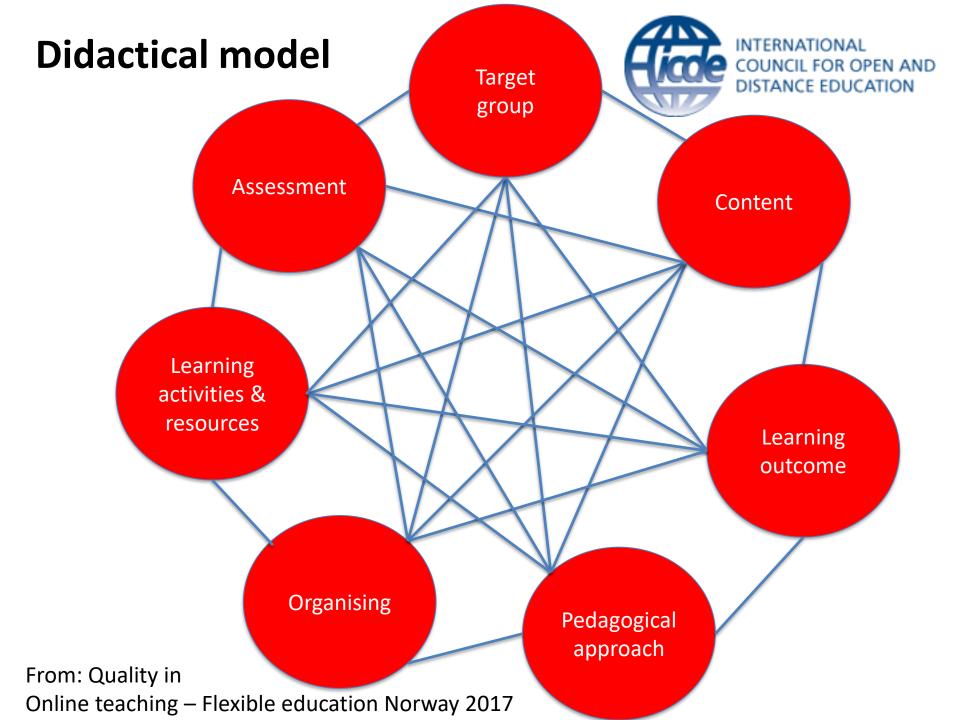
2016

China, 1 United States, 2

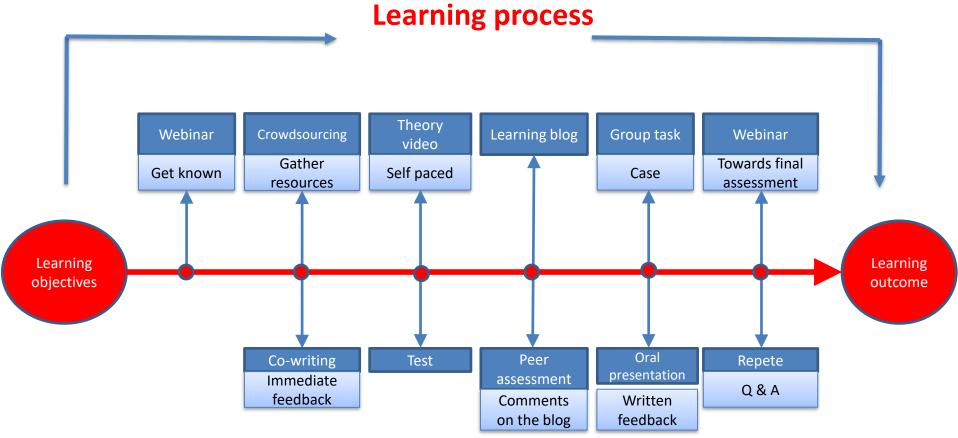


# Innovate

transform learning transform society transform lives







Feedback - assessment

From: Quality in

Online teaching – Flexible education Norway 2017

# Facilitating innovative pedagogy



Security

Devices, Laptops, Smartphones, tablets, VR-glasses

### Content

Apps for interactions, creativity, collaboration, emotions and motivation

Student support

Webinar Get known Gather resources Self paced Cowriting Immediate feedback

Teacher Support

Learning process

Webinar Towards final assessment Outcome

Test Immediate feedback

Support

Learning blog Group task Case Towards final assessment Outcome

Webinar Towards final assessment Outcome

Outcome

Witten feedback

Owniting Immediate feedback

Ownit

Feedback - assessment

Security

Institution wide applications: e-assessment, learning analytics, ePortfolio

Education providers basicinfrastructure, LMS, SIS

ICT infrastructure – high capacity networks

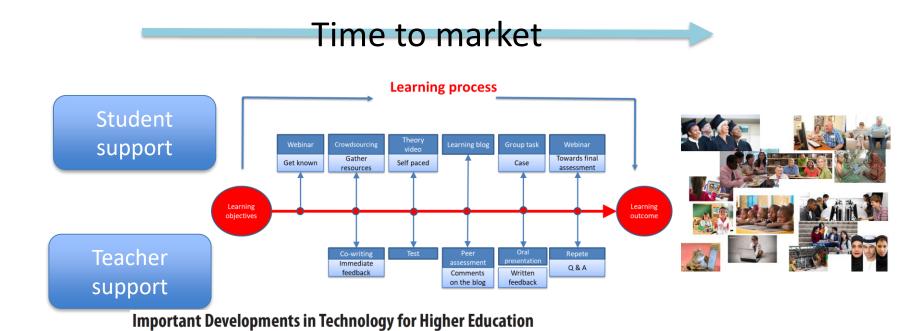
Data protection

protection

Data

# Facilitating innovative pedagogy





2020

**Five Years** 

2021

Time-to-Adoption

Horizon: Four to

Artificial Intelligence

Mobile Learning Next-Generation LMS Natural User Interfaces

http://www.nmc.org/publication/nmc-horizon-report-2017-higher-education-edition/

Time-to-Adoption

Horizon: Two to

The Internet of Things

Three Years

2017

Time-to-Adoption

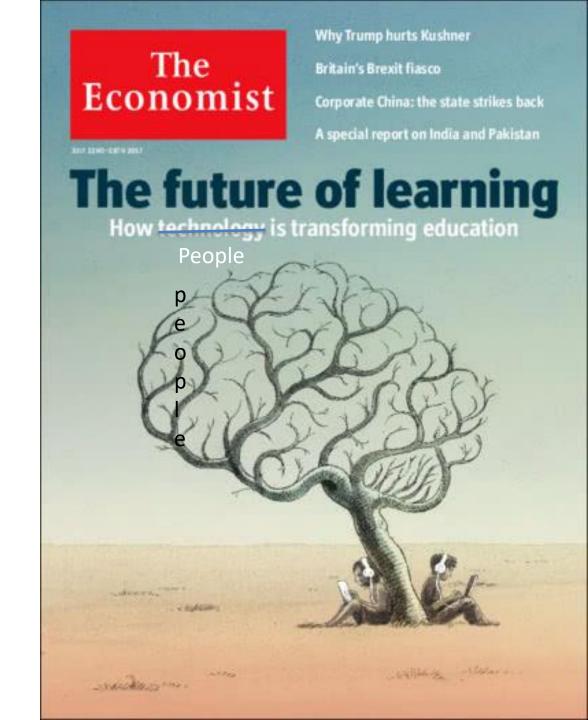
Horizon: One Year

Adaptive Learning Technologies

or Less

# Innovate and transform

Test







The vision is that for the first time in human history it is possible to achieve inclusive and equitable quality education and lifelong learning for all.

(Sustainable Development Goal 4)





# Technology Transformation for Pedagogy Innovation



Prof. Dae Joon Hwang, Sungkyunkwan University, Seoul, Korea, djwang@skku.edu UNESCO IITE Governing Board Member, Moscow

# What is our ultimate goal?









# **THANK YOU!**

titlestad@icde.org www.icde.org

Sustainable Development Goal 4: Education 2030

"TOWARDS INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND LIFELONG LEARNING FOR ALL"