



MENA Innovation 2019

Official Ministerial Forum for ICT Innovation in Education

منتدى الابتكار التقني في التعليم بمنطقة الشرق الأوسط و شمال أفريقيا ٢٠١٩

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مسقط - سلطنة عُمان ١٦-١٨ سبتمبر ٢٠١٩



Transformation through Critical Thinking in Education & Scientific Research

Opening Comments:

Prof Omar Al Jarrah

Vice President for Planning Development

Arab Open University - HQ Kuwait



“Education is not the learning of facts,
but the training of mind to think.”

“The development of general ability
for independent thinking and judgment
should always be placed foremost, not
the acquisition of special knowledge.”

Albert Einstein

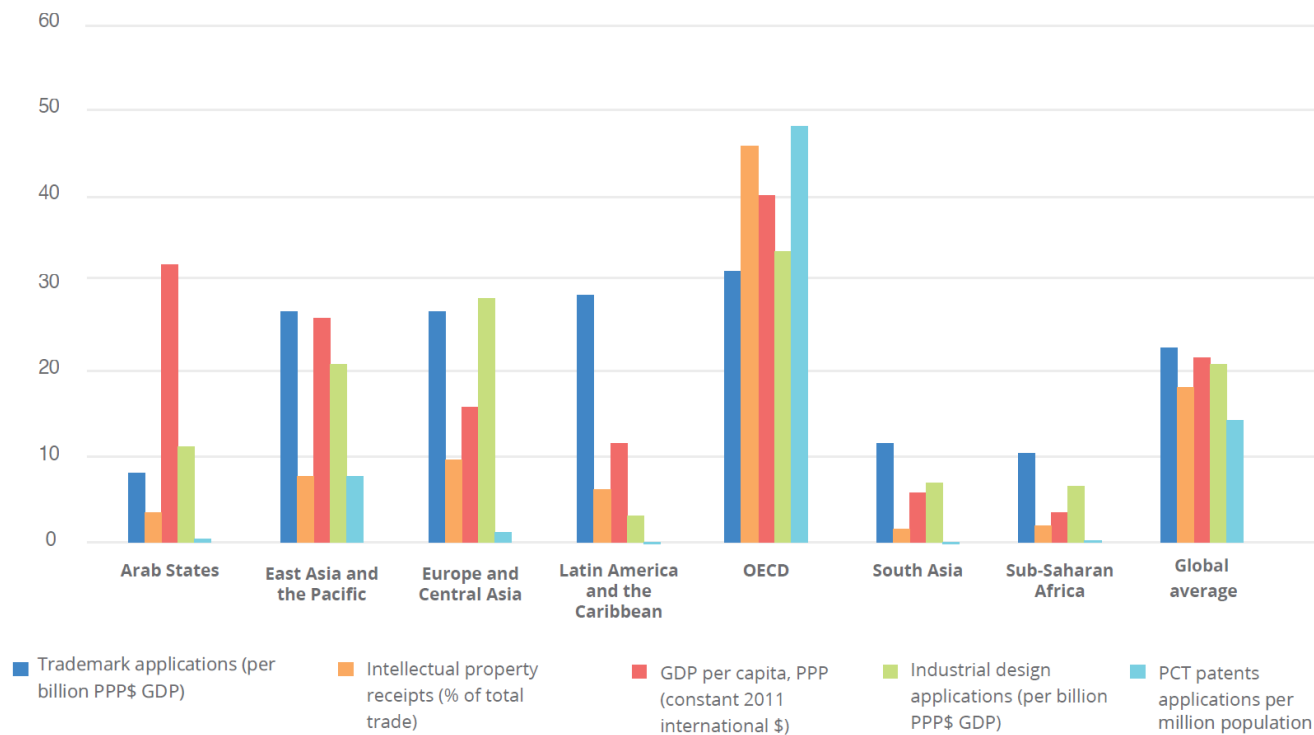
Transformation in Education: Critical Thinking and Media Literacy Skills

Around 8 out of 10 middle school students cannot distinguish 'fake' news from real news.

“Critical thinking is needed to make democracies more resilient.”

Source: European Political Strategy Centre

Average scores by region on RDI variables of economic significance and GDP per capita



Country Rankings of Research Productivity

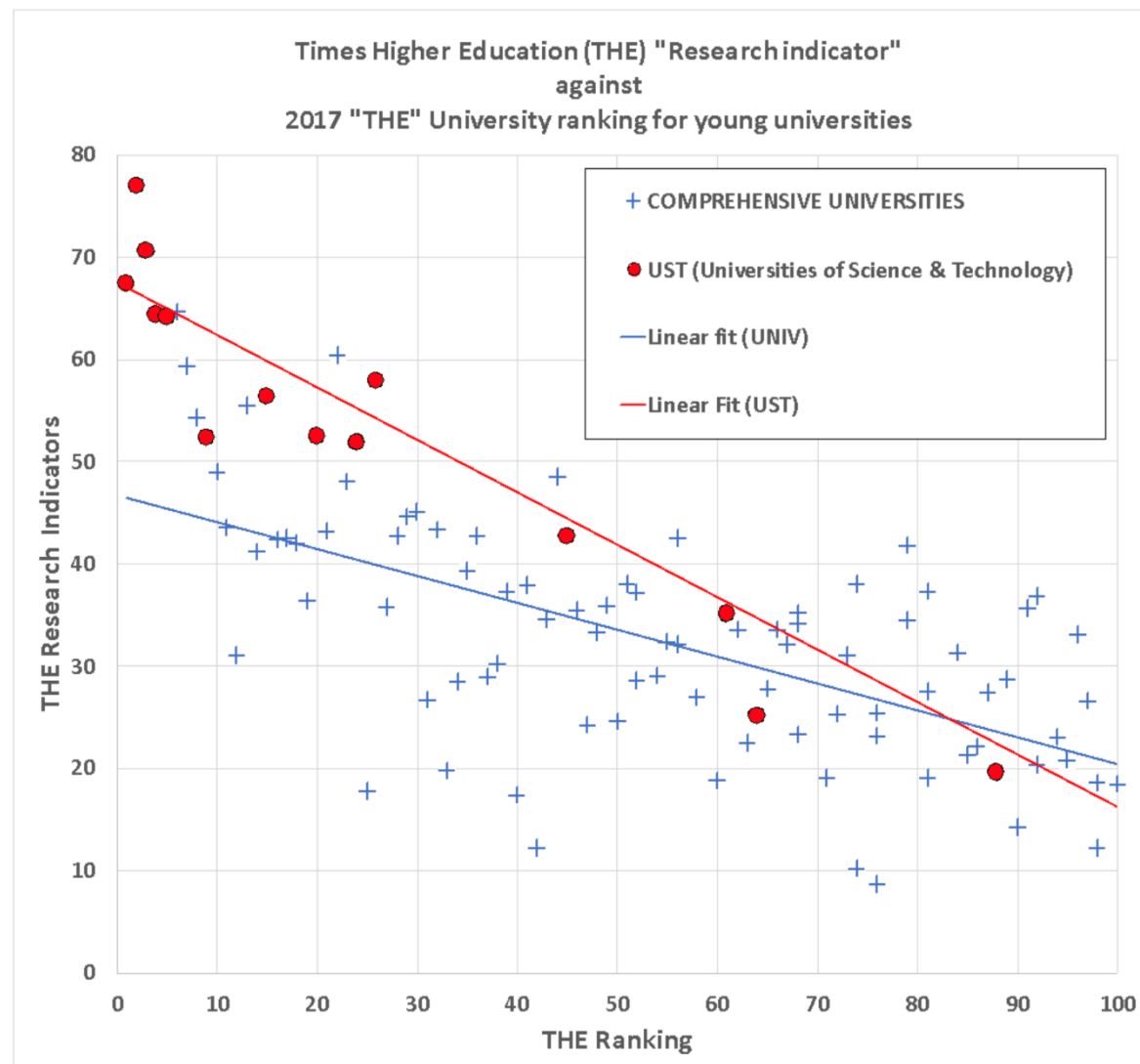
Country	Publication	Citations	CPP	H index
United States	570104	528530	0.77	2222
China	569227	399135	0.67	794
United Kingdom	172148	187806	0.89	1373
Germany	158437	154187	0.85	1203
India	152110	75947	0.44	570
Japan	118409	75593	0.58	967
Saudi Arabia	21598	22597	0.96	309
Egypt	20074	13995	0.64	260
Algeria	6960	4348	0.57	157
United Arab Emirates	6521	4230	0.58	190
Morocco	6385	3864	0.55	179
Jordan	4122	2604	0.58	156

2018 SCImago Journal & Country Rank

INVESTING IN NEW SCIENCE & TECHNOLOGY UNIVERSITIES

The region has seen a growth in the creation of new universities of science & technology (USTs)

Globally these USTs are outperforming traditional universities by blending research and innovation:



SCIENTIFIC RESEARCH IN ARAB UNIVERSITIES: THE CHALLENGES



Inadequate application of information technology



Need for greater investment & academic freedom



Coordinating research with the private sector and market realities



Need for new teaching/learning methods

What is needed to promote scientific research?

Can critical thinking play a key role in transforming the challenges into opportunities?



CRITICAL THINKING FOR TRANSFORMATION



The need to broaden, not deepen knowledge

Shifting from the reliance on traditional methods

Instil the values of intellectual curiosity

Critical thinking and problem solving

Enter 21st Century skills into the curriculum

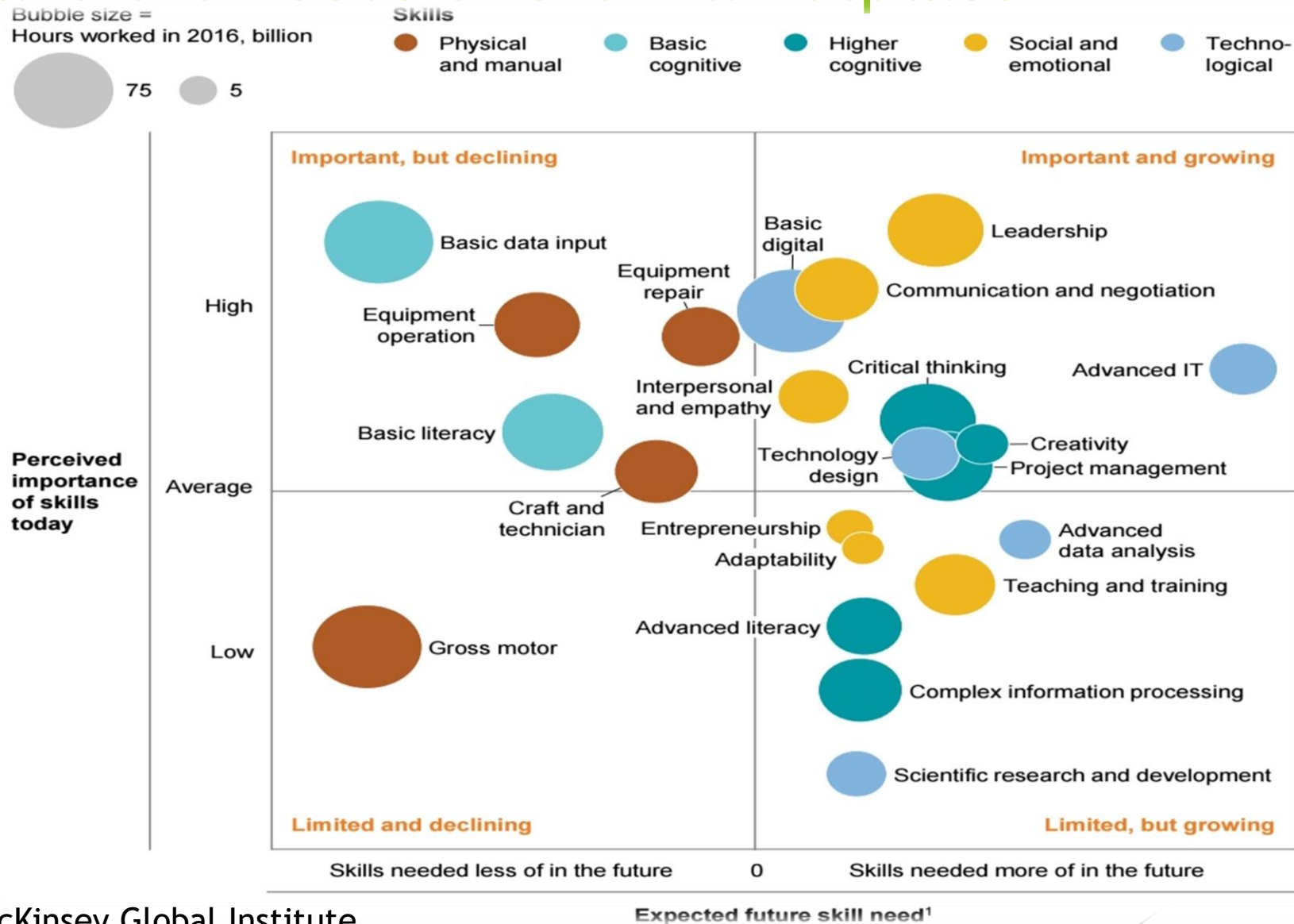
Enhance faculty research

Think globally

Promote quality assurance



Skill Gap: Mismatch between graduates' skills and the needs of the marketplace



THE FUTURE: CLOSER INDUSTRY COLLABORATION



Creating an environment conducive to research by hosting centres & technology parks with corporations



Protect the intellectual property of researchers and their institutions



Pathways from research to incubators for entrepreneurship



Attract industry investment and venture capital



Transform the traditional university model to be outward-facing and connected

