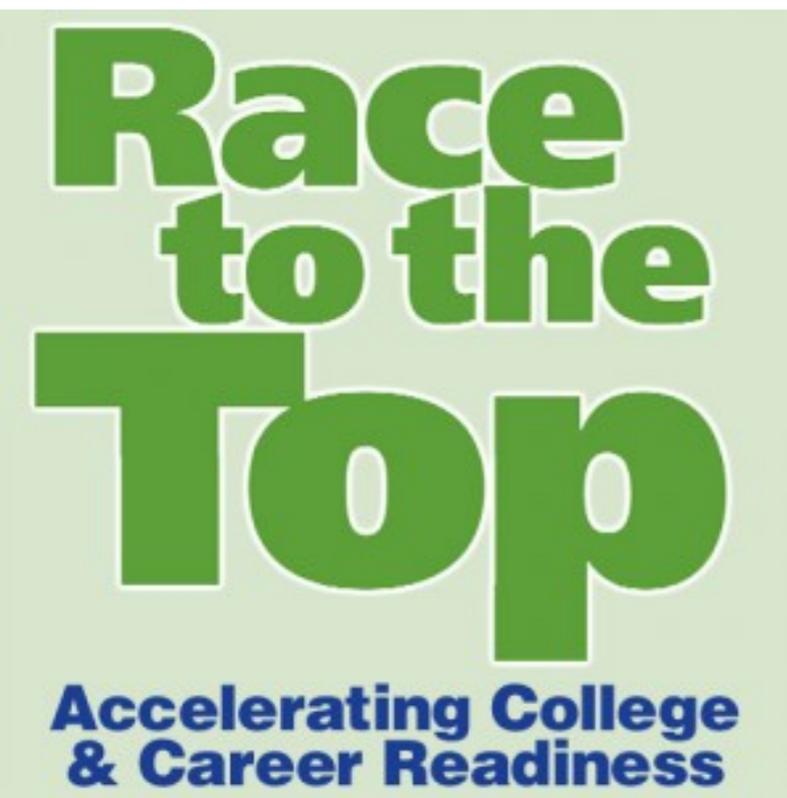


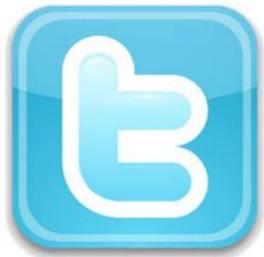


Test scores
=
New God in Education



**if you judge a fish by its
ability to climb a tree...**

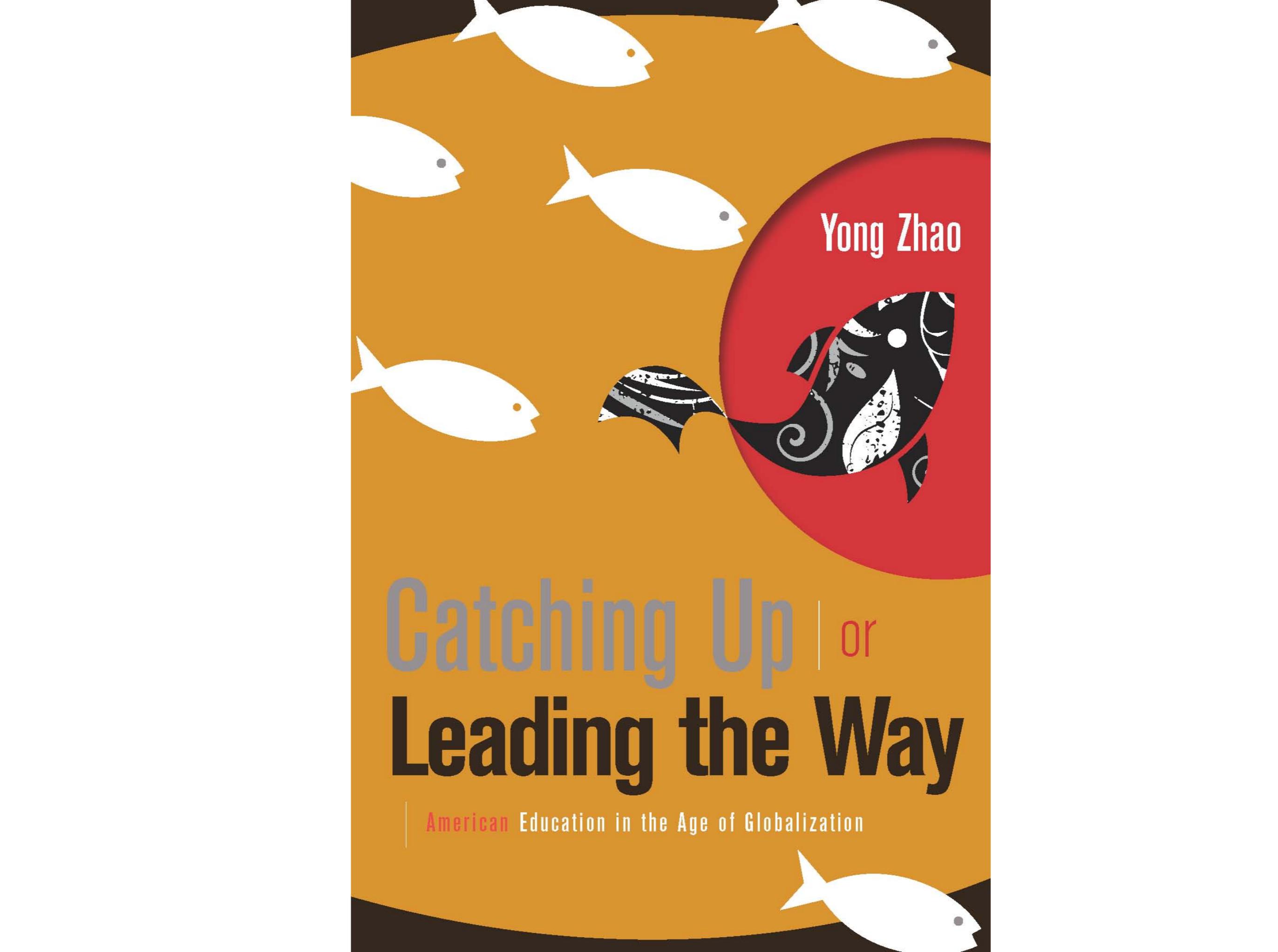
<http://zhaolearning.com>



@YongZhaoUO



<http://www.facebook.com/yongzhao.uo>



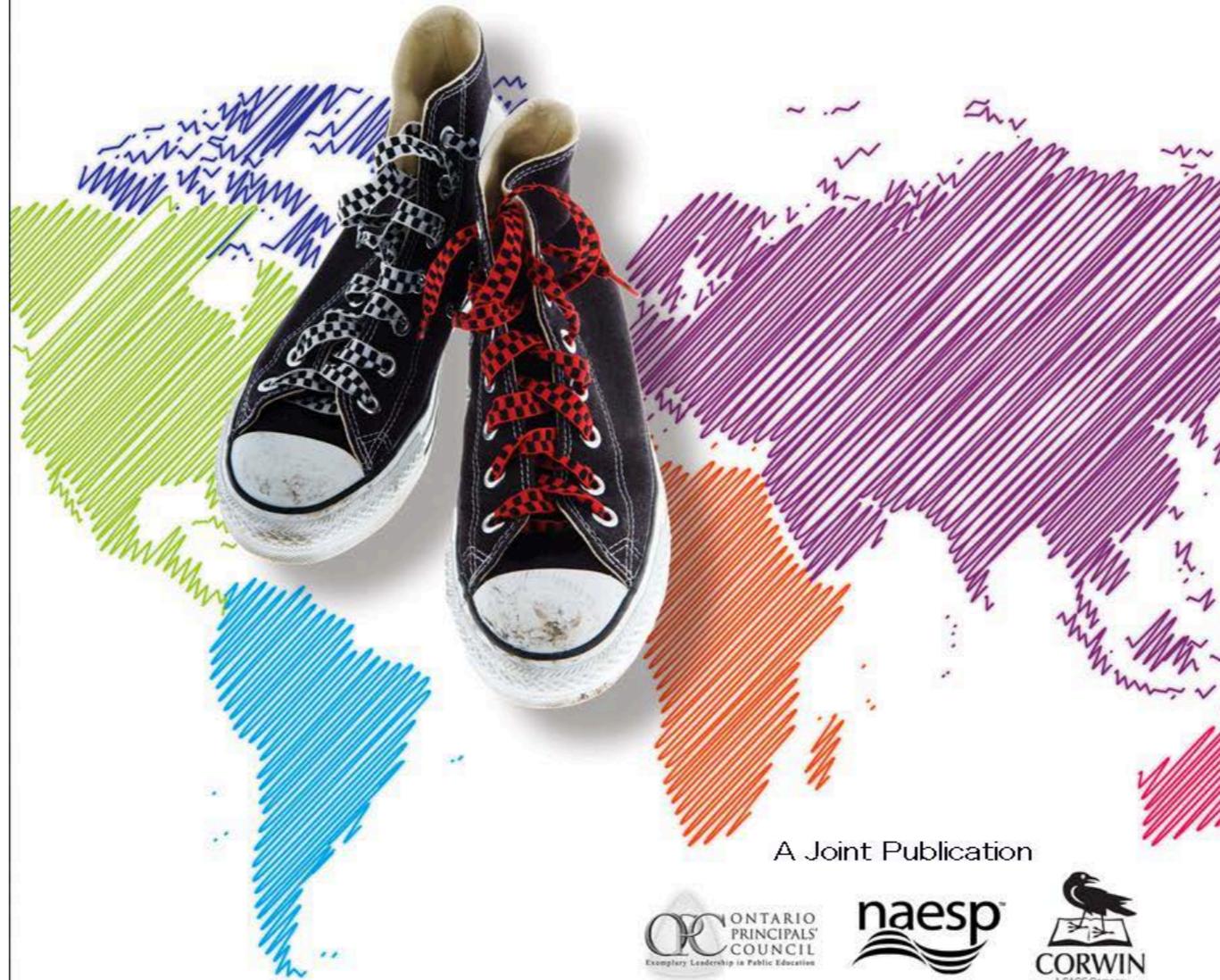
Yong Zhao

Catching Up | or
Leading the Way

American Education in the Age of Globalization

World Class Learners

Educating Creative and
Entrepreneurial Students



A Joint Publication

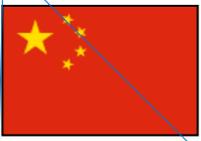


Yong Zhao

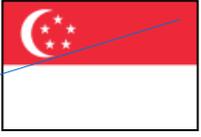
Why Didn't China Have a
Big Party?

2009 PISA Results

Math



Shanghai, China



Singapore



Hong Kong, China



South Korea



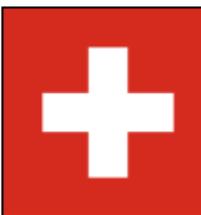
Taiwan



Finland



Liechtenstein



Switzerland

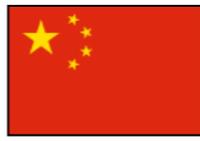


Japan



Canada

Sciences



Shanghai, China



Finland



Hong Kong, China



Singapore



Japan



South Korea



New Zealand



Canada

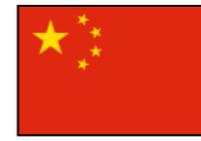


Estonia



Australia

Reading



Shanghai, China



South Korea



Finland



Hong Kong, China



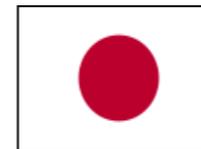
Singapore



Canada



New Zealand



Japan

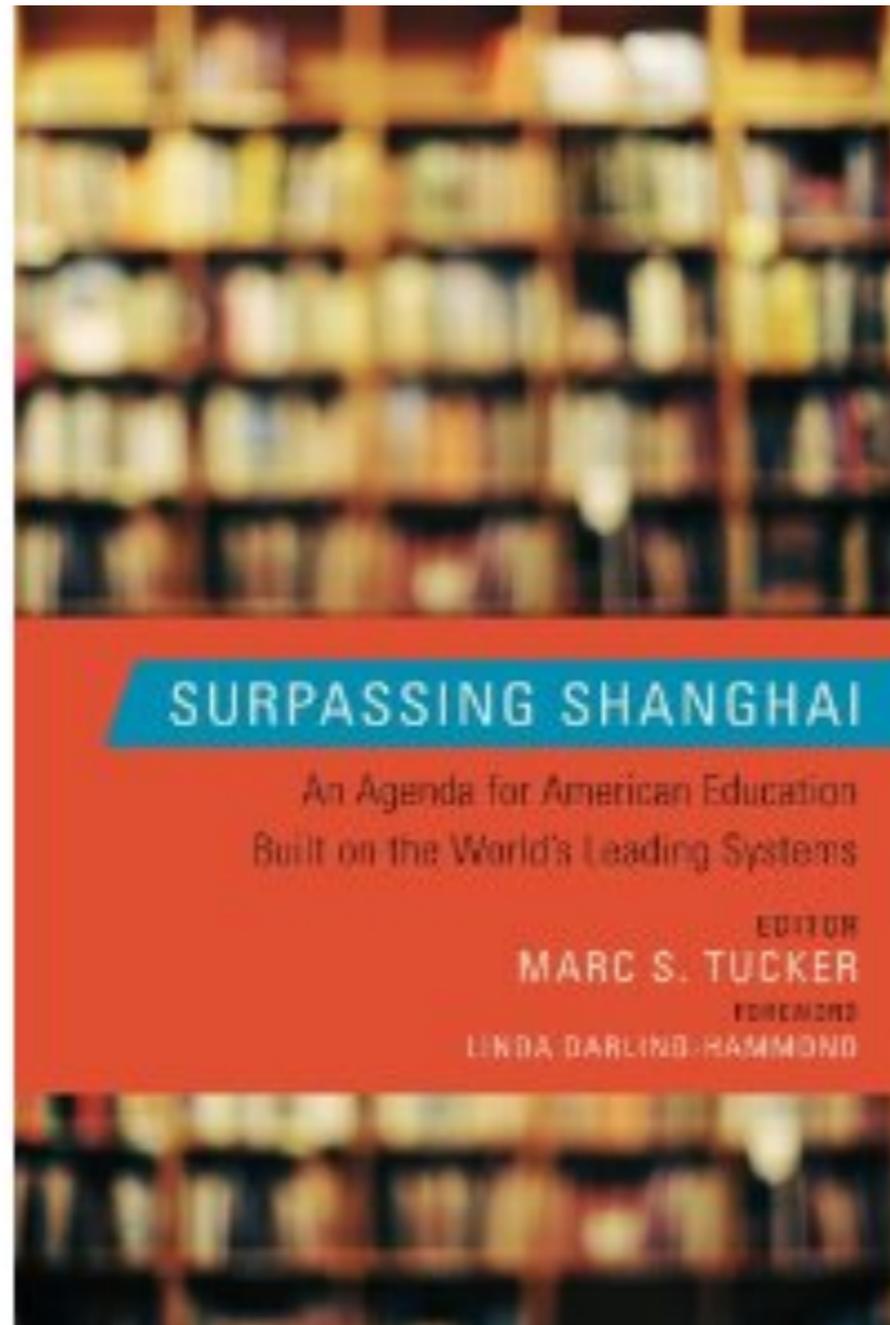


Australia



Netherlands

Arne Duncan: “A wake-up call”



Barack Obama: “A Sputnik moment”

A Grattan Institute report, to be released today, shows Australian performance has slipped since 2000, with maths students now **more than two years behind children in Shanghai** and one to two years behind children in Hong Kong, Singapore and South Korea.

--Sydney Morning Herald, 02-17-2012

<http://www.smh.com.au/national/education/australian-students-lag-asia-by-three-years-20120216-1tbt8.html#ixzz1me2MH9mL>

We've become a nation of wusses. The Chinese are kicking our butt in everything. If this was in China do you think the Chinese would have called off the game? People would have been marching down to the stadium. They would have walked and **they would have been doing calculus on the way down...**

--Former Pennsylvania Governor Ed Rendell on the rescheduling of an NFL game, 2010

<http://voices.washingtonpost.com/44/2010/12/ed-rendell-were-a-nation-of-wu.html>

I am happy to confess I'd like us to implement a cultural revolution just like the one they've had in China...Like Chairman Mao, we've embarked on a **Long March** to reform our education system.

--Michael Gove, British Secretary of State for Education

<http://www.telegraph.co.uk/education/8227535/Michael-Gove-my-revolution-for-culture-in-classroom.html>

Qian Xuesheng: “Why doesn’t China have great talents?”



Wen Jiabao: “China must have entrepreneurs like Steve Jobs”

Kai-fu Lee: The next Apple or Google will appear, but not in China... unless it abolishes its education.

Real Dragon or Paper Tiger: Patent filings in 2008

U.S.A. 400,769 filings
Japan 502,054 filings
China 203,481 filings

Europe 14,525 filings
U.S.A. 14,399 filings
Japan 13,446 filings
China 473 filings

In 2010 China accounted for

20% of the world's population

9% of the world's GDP

12% of the world's R&D expenditure

1% of the patent filings with or patents granted by any of the leading patent offices outside China.

50 % of the China-origin patents were granted to subsidiaries of foreign multinationals

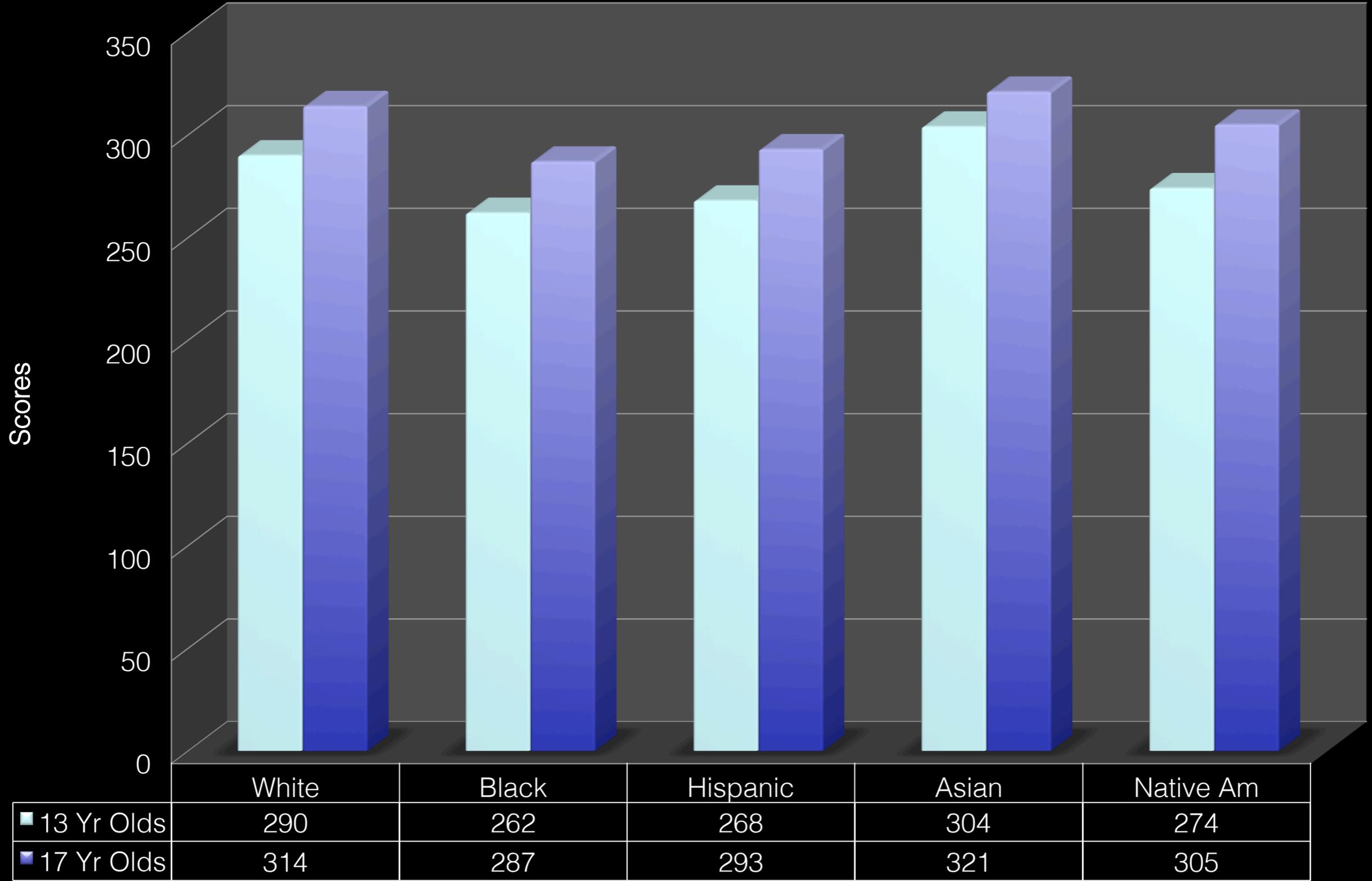


Steve Wozniak: Apple couldn't emerge in societies like Singapore where 'bad behavior is not tolerated' and people are not taught to think for themselves.

Alexis Ong: Wozniak's comments are really a scathing indictment of the Singapore education system, its strictly regimented curriculum and by-rrote study techniques that sustain the city's "formal culture."

Why Aren't the Model
Minority Happy?

2008 NAEP Math Scores by Race/Ethnicity



Asian Americans

- 5% of the US population
- 15 to 25% of Ivy League enrollment
- 24% at Stanford
- 46% at UC Berkeley
- 64 percent of Asians versus 52 percent for Caucasians want to hold top positions
- **2% of total 5,520 board seats of the Fortune 500 (98 of them have Asians on their board)**

http://www.worklifepolicy.org/documents/TopAsianTalent_PressRelease_7.20.11.pdf

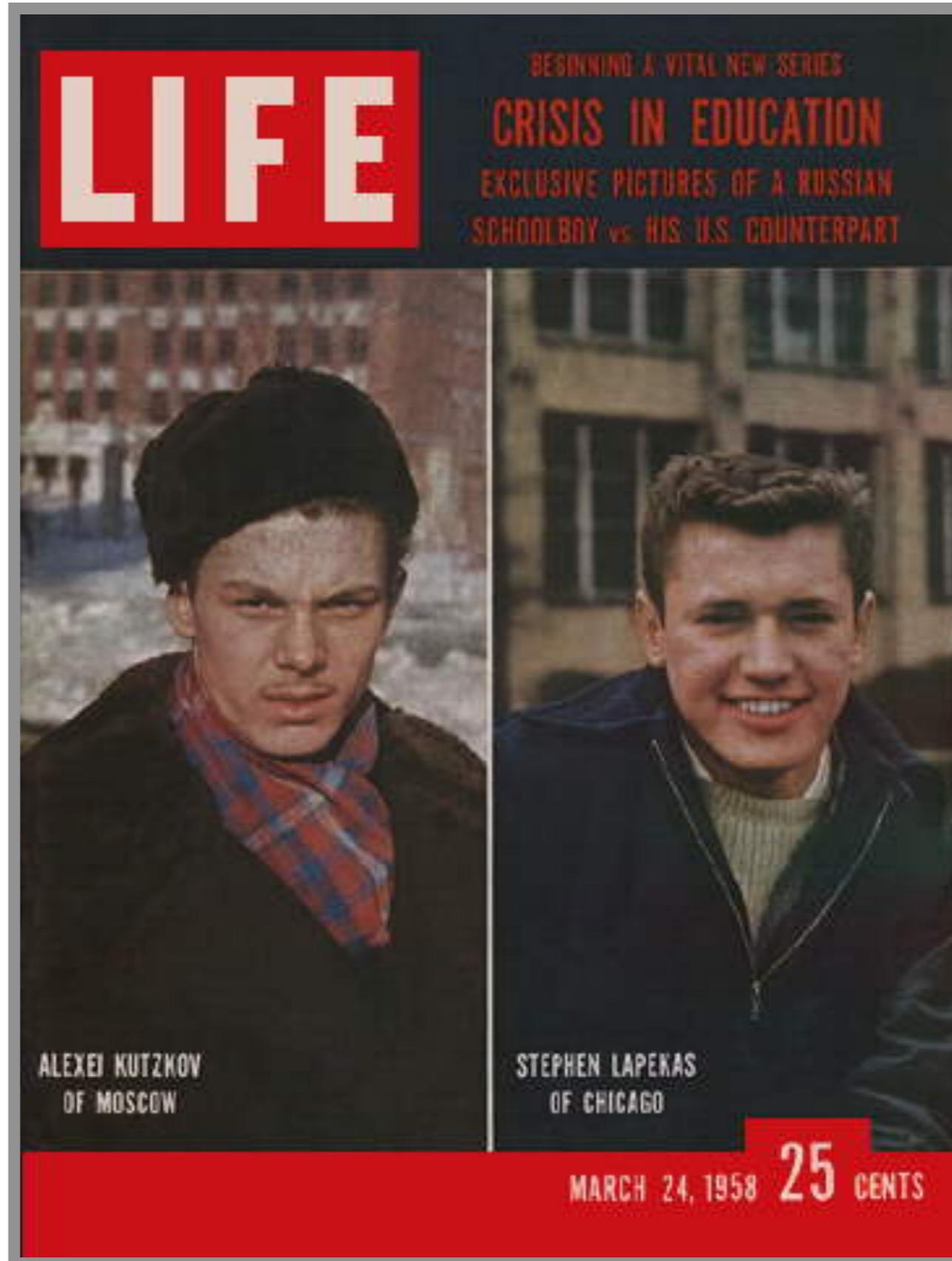
<http://aapress.com/business/report-only-96-asians-hold-fortune-500-board-seats/>

Why Is the U.S. Still Here?

Alexei vs Stephen: Curriculum and Time

Inside photos showed Alexei doing complicated experiments in physics and chemistry and reading aloud from *Sister Carrie*.

1958



Stephen, by contrast, retreated from a geometry problem on the blackboard and the caption advised, "Stephen amused class with wisecracks about his ineptitude." Seated at a typewriter in typing class, Stephen tells us "I type about one word a minute."



Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world.

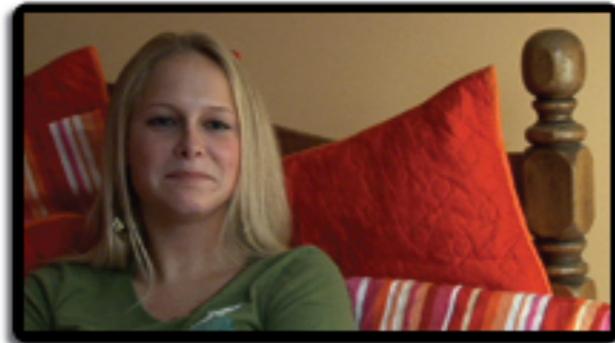
the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people.

We are raising a new generation of Americans that is scientifically and technologically illiterate.

*To Glenn Seaborg
With appreciation*

1983 Japan

Elephant vs. doctor: Aspirations



2 Million Minutes

Bob Compton

Source: <http://www.2mminutes.com/pressblog6.html>

A Long History of Bad Test-takers

- **1960s**
 - FIMS: 12th out of 12 countries
 - FISS: 14th out of 18 countries
- **1970s/1980s**
 - SIMS: 12, 14, 12, 12 out of 15 (number systems, algebra, geometry, calculus)
 - SISS: 14th (biology), 12th (chemistry), 10th (physics) out of 14
- **1990s—2007: TIMSS (8th graders)**
 - 28th out of 42 in 1995
 - 15th in 2003
 - 9th in 2007

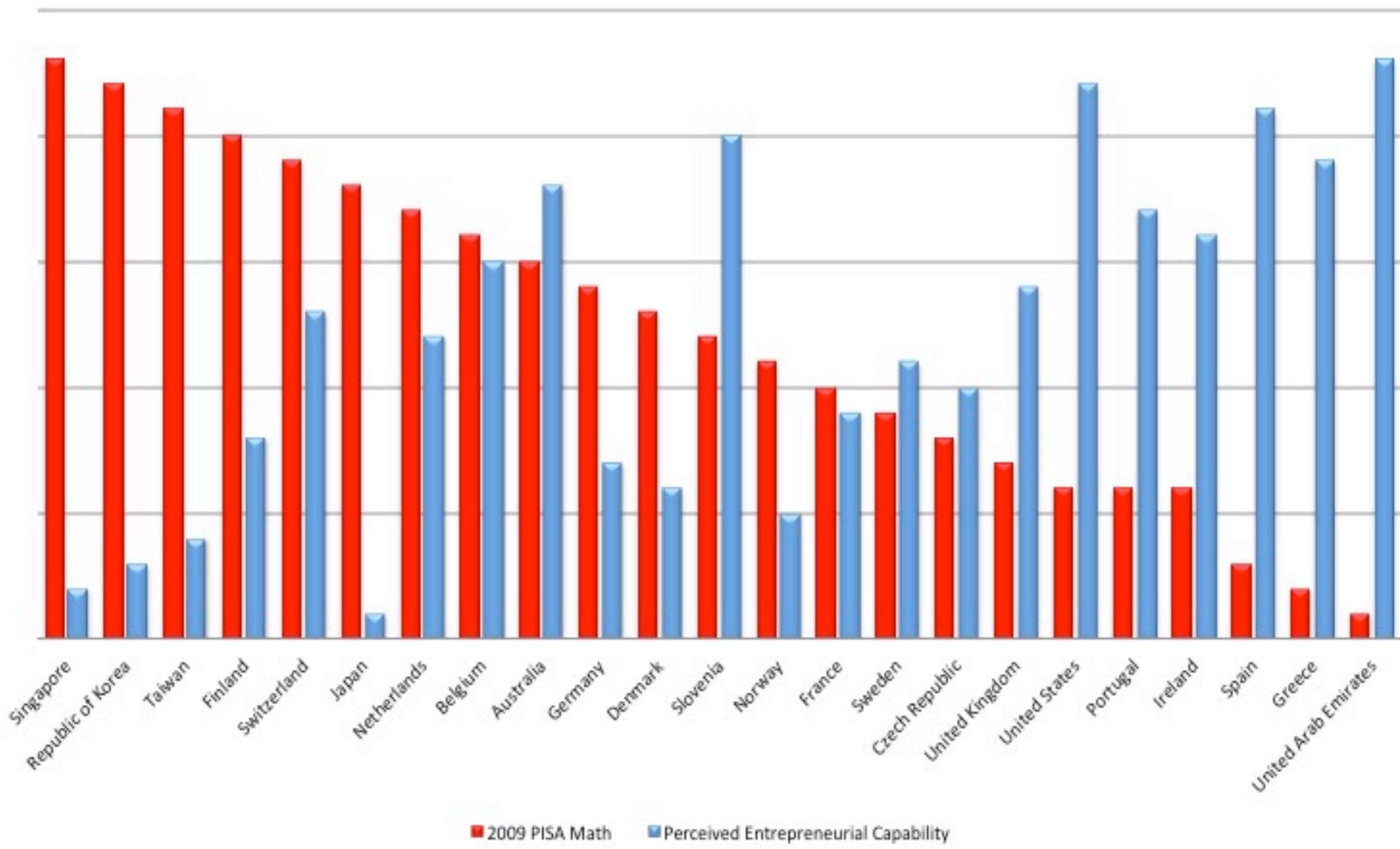
...America still has the largest, most prosperous economy in the world. (Applause.) No workers -- no workers are more productive than ours. No country has more successful companies, or grants more patents to inventors and entrepreneurs. We're the home to the world's best colleges and universities, where more students come to study than any place on Earth.

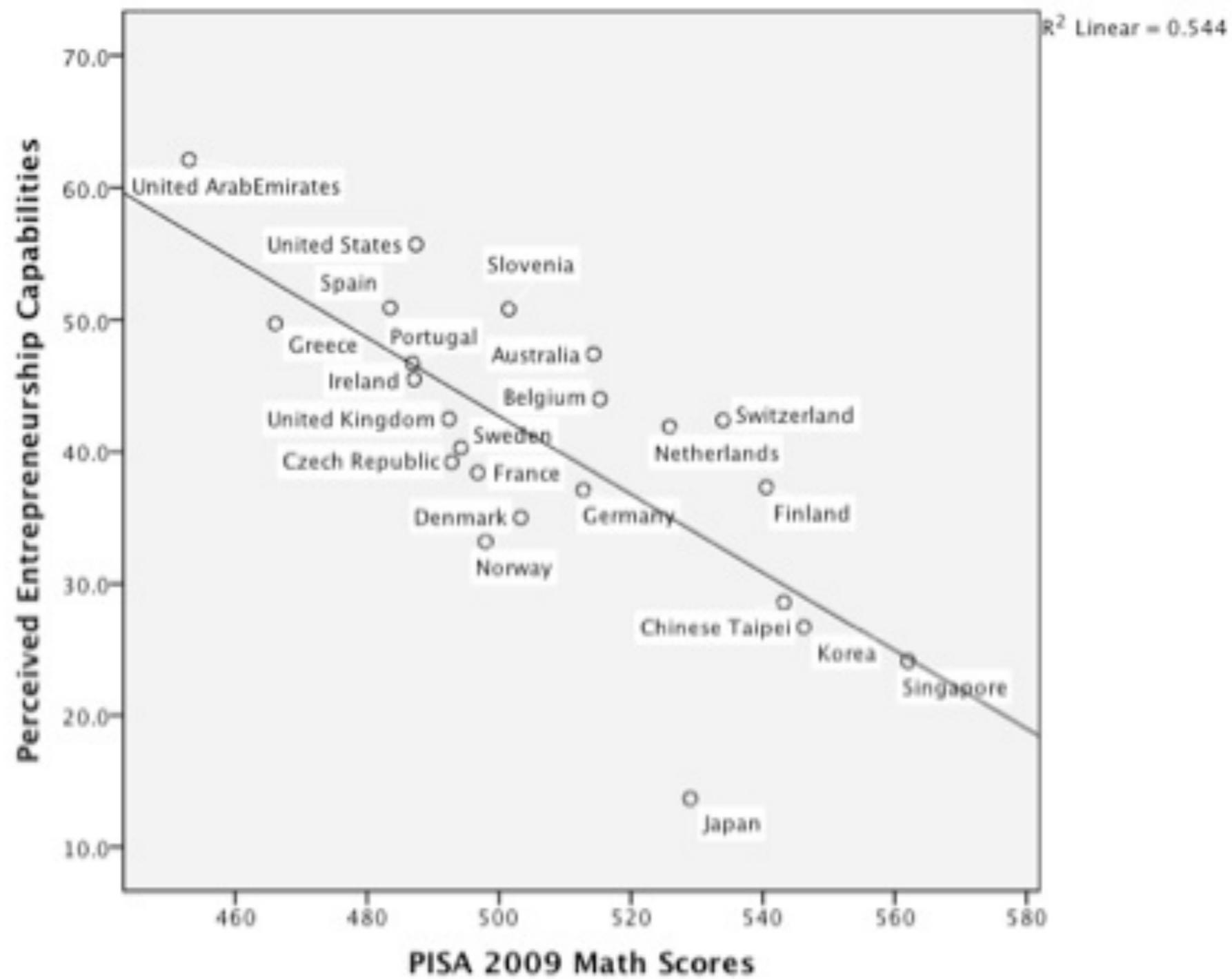
--President Obama, 2011 State of the Union Address

Possible Explanations

Explanation #2

Ranking by PISA Math Score and Perceived Entrepreneurial Capability





Correlations between PISA and Entrepreneurship Indicators

	PISA Reading	PISA Math	PISA Sciences
Perceived Capabilities	-.595**	-.586**	-.608**
Nascent Entre Rate	-.693**	-.636**	-.678**
New Biz Ownsp Rate	-.371*	-.374*	-.392*
Total Early Stage Entre Activity	-.658**	-.620**	-.658**

Data source: OECD PISA 2010, Global Entrepreneurship Monitor, 2010

Test scores



Asian Countries

USA

2003 TIMSS Results

Confidence

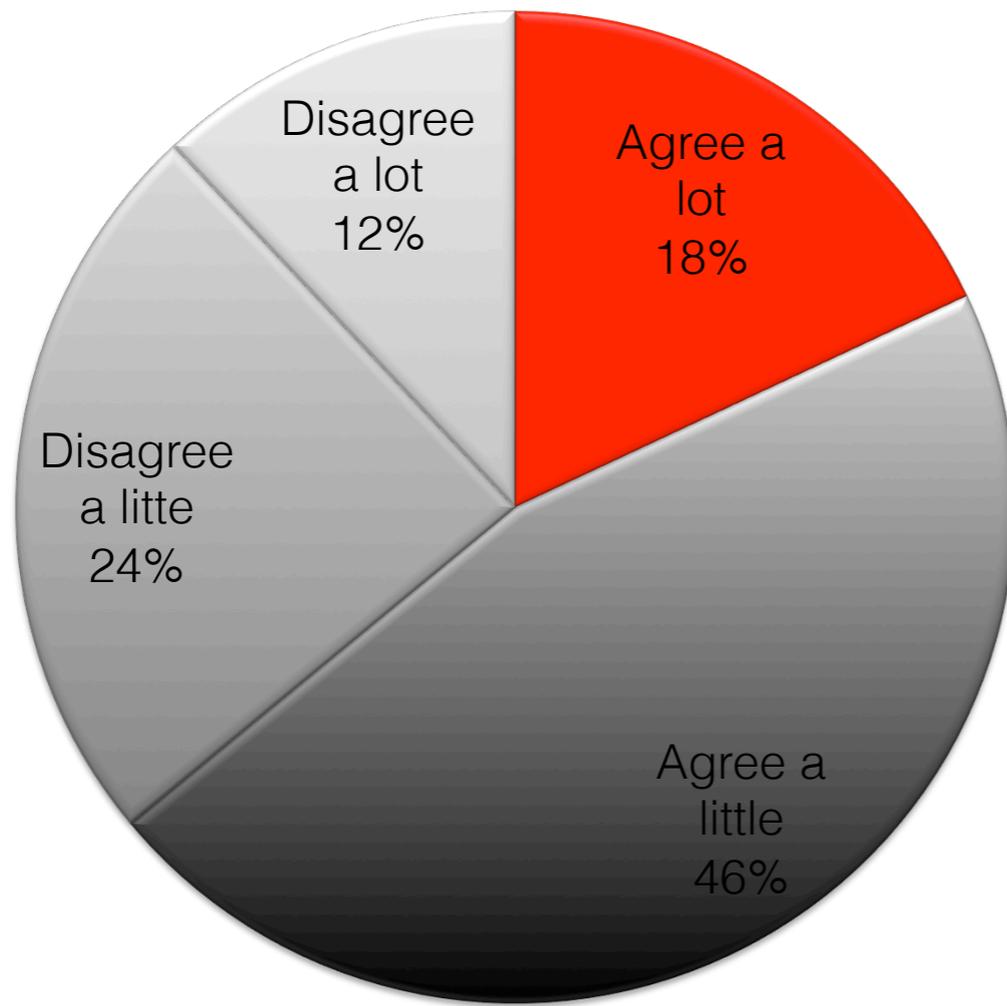


USA

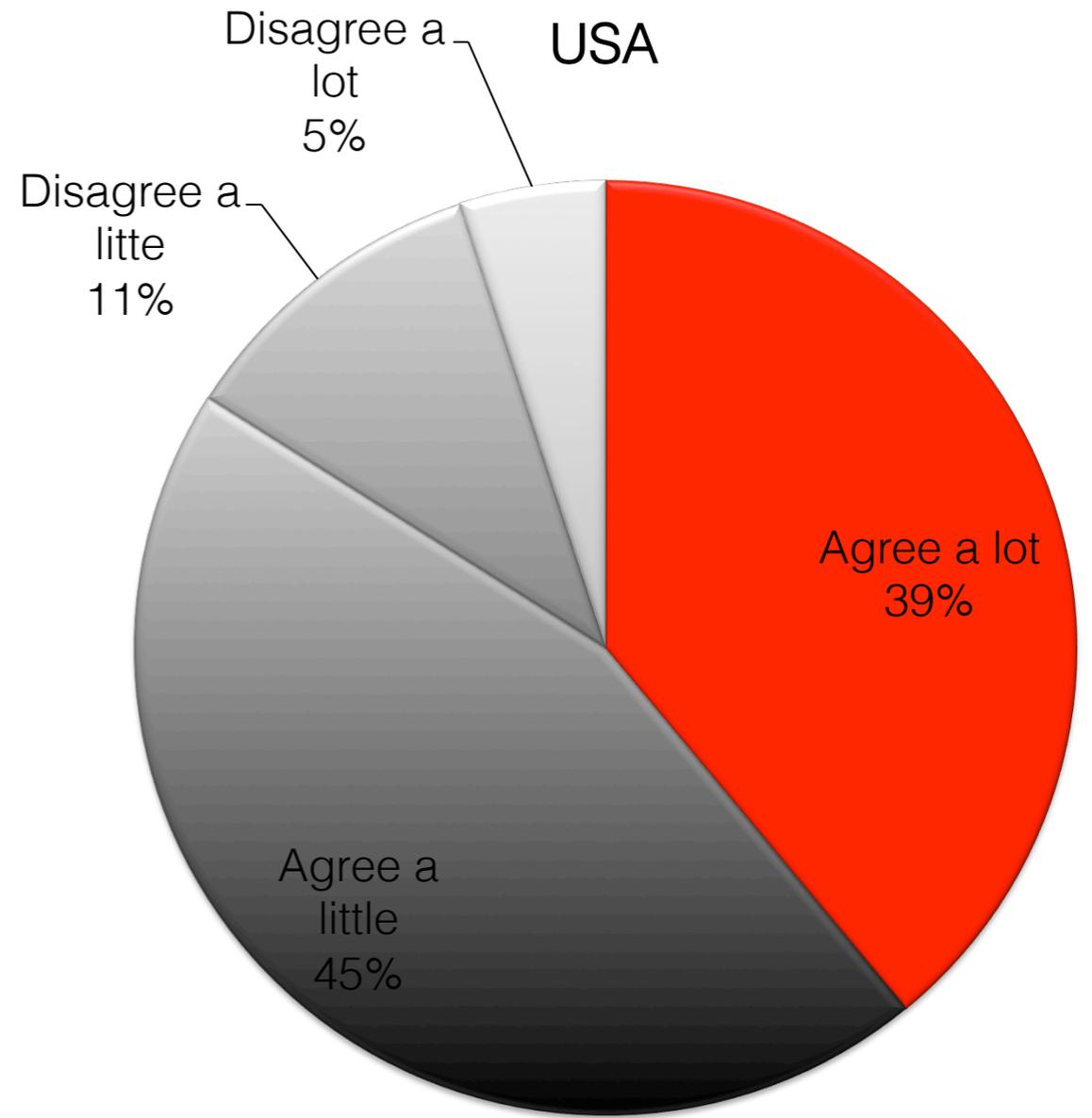
Asian Countries

2003 TIMSS Results

Singapore



USA



Responses to "I usually do well in Math"

Correlations between TIMSS Math Score and Confidence and Enjoyment

	Grade	Correlation
Confidence	4	-0.58
	8	-0.64
Enjoyment	4	-0.67
	8	-0.75

Tom Loveless (2006): How Well Are American Students Learning
http://www.brookings.edu/~media/Files/rc/reports/2006/10education_loveless/10education_loveless.pdf

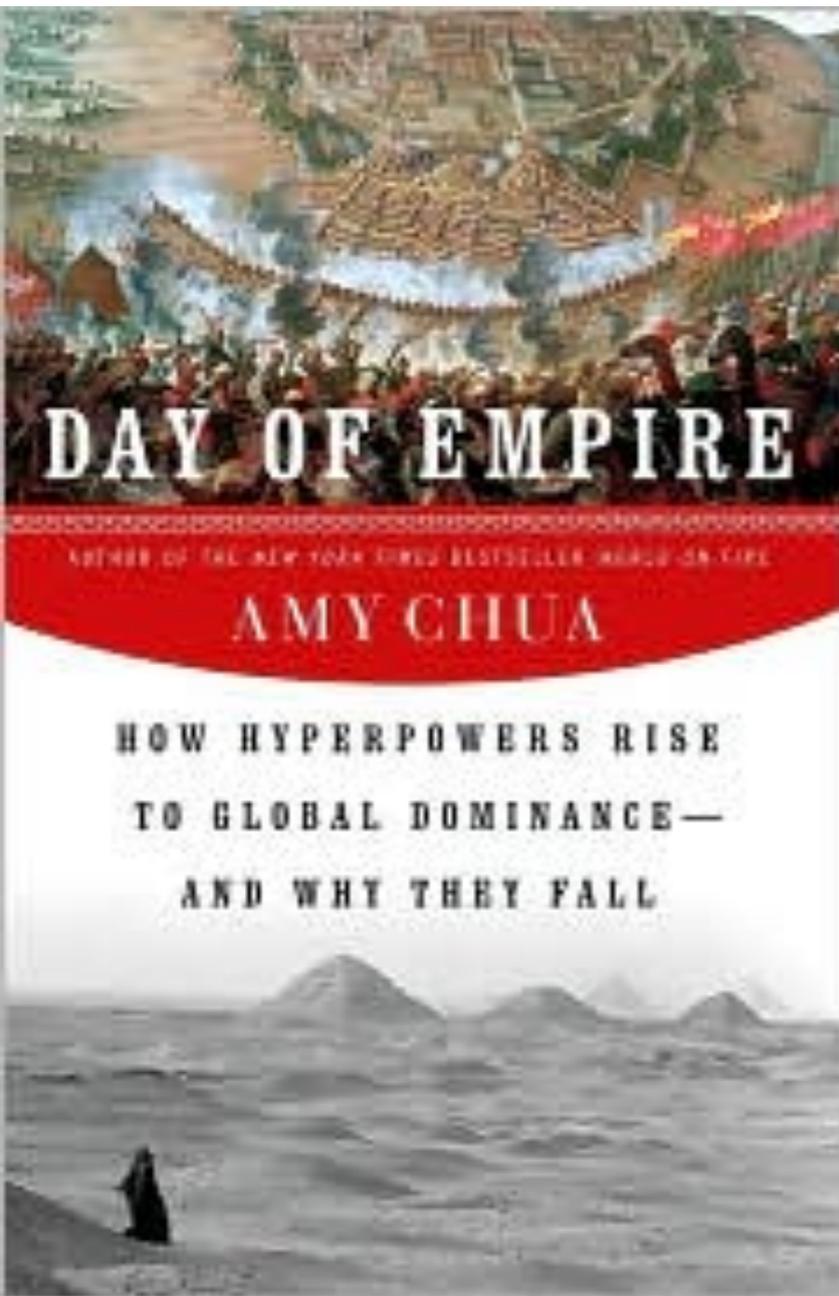
Explanation #2

Lady Gaga

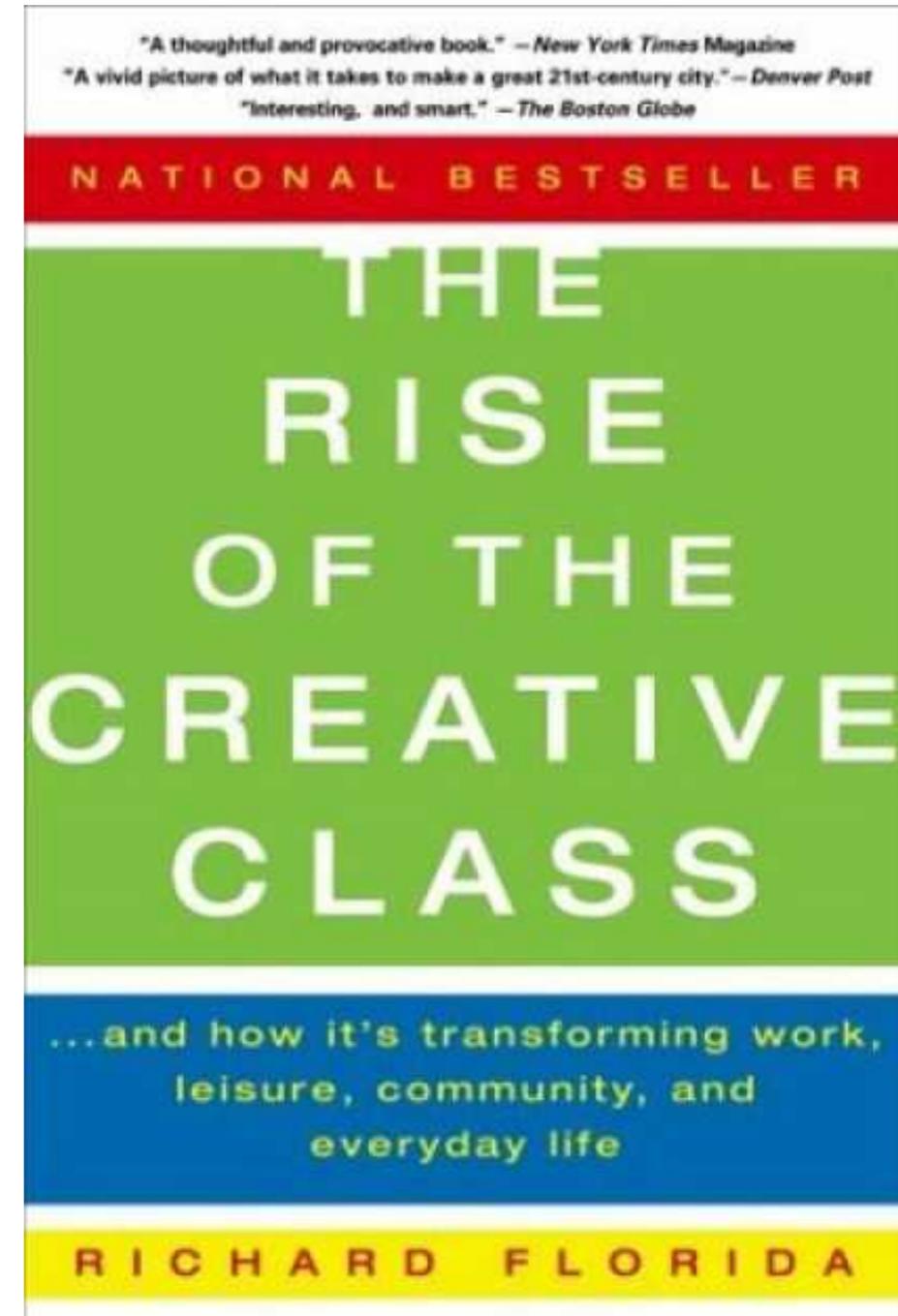
Lady Gaga



What matters?



Diversity of talents
Creativity
Entrepreneurship
Passion



In our travels to China it was everywhere, that **laser-focus on education**... This public school in Shanghai where the children are two years old. By three they are in school from 8 until 4, already learning phrases in English... On average Chinese students attend schools 41 more days than American students a year and with extra lessons on the weekend, Chinese students receive 30% more hours of instruction.

--ABC World News with Diane Sawyer, 2010

<http://abcnews.go.com/Politics/china-debuts-top-international-education-rankings/story?id=12336108#.Tz5va0xU2Fc>

Over 80% of parents send their children to tutorial school... Compared with other societies, young people in Shanghai may be much more immersed in learning in the broadest sense of the term. Naturally they learn more, what they learn and how they learn are subjects of constant debate. Critics see young people as being “fed” learning because they are seldom left on their own to learn in a way of their choice. They have little direct encounters with nature, for example, and little experience with society either. While they have learned a lot, they may not have learned how to learn.

--OECD, 2011

<http://dx.doi.org/10.1787/9789264096660-en>

Explanation #3



The Ultimate Explanation

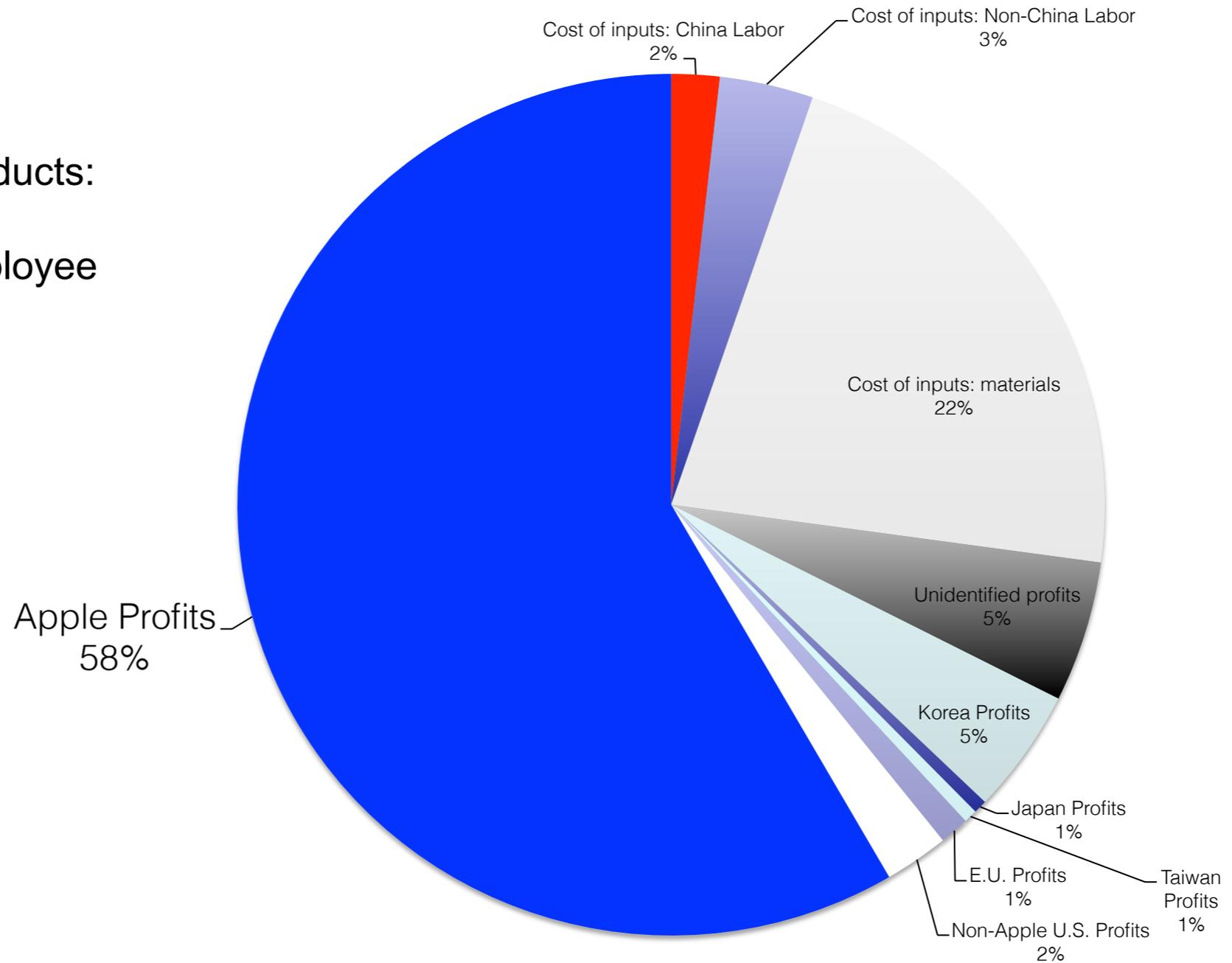


The future: The Age of Globalization

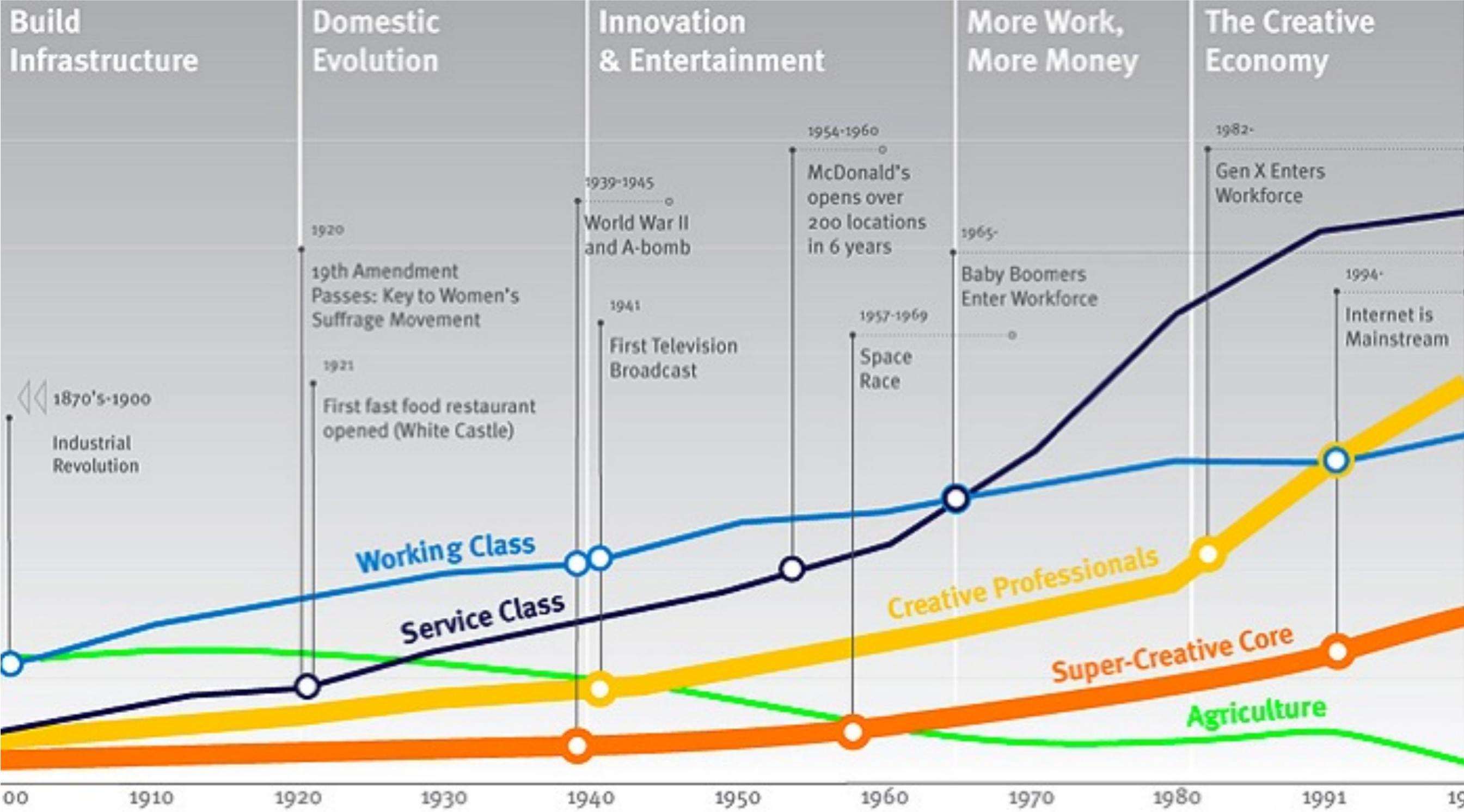


The stone age did not end because they
ran out of stones

Distribution of Value for iPhone 2010



Apple Employees:
43,000 US, 20,000 overseas
People working on Apple Products:
700,000
Apple profit: 400,000 per employee



Entrepreneurs:

Business entrepreneurs

Social entrepreneurs

Intrapreneurs

Policy entrepreneurs

Entrepreneurial Qualities

Confidence

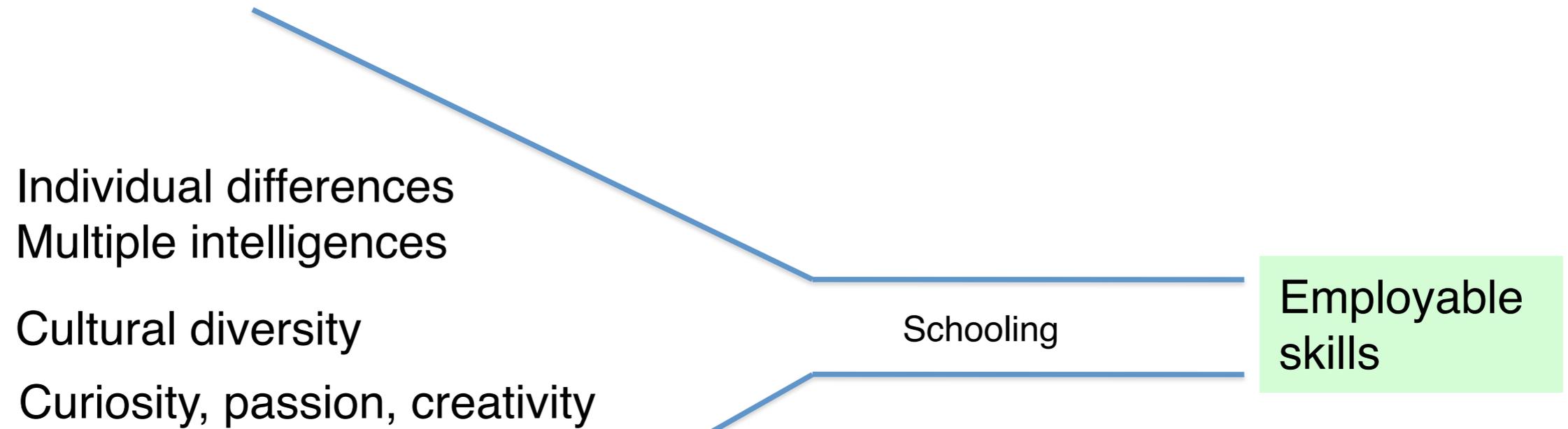
Friends

Risk-taking

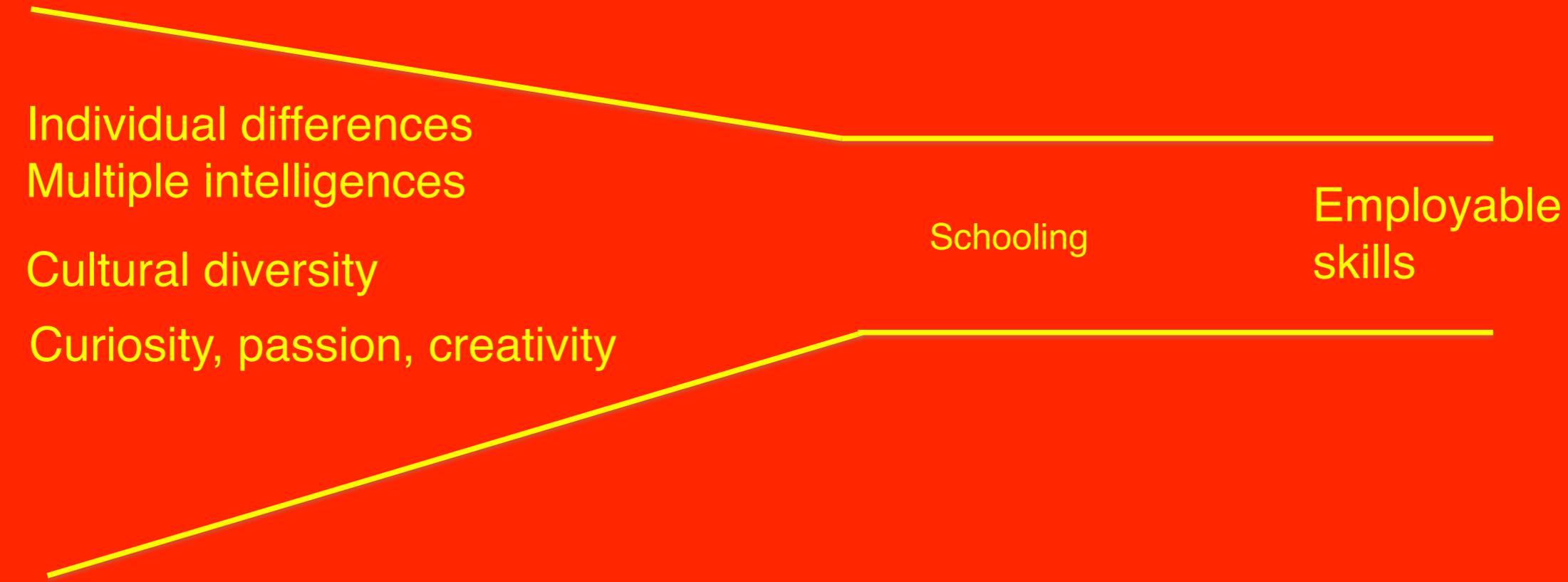
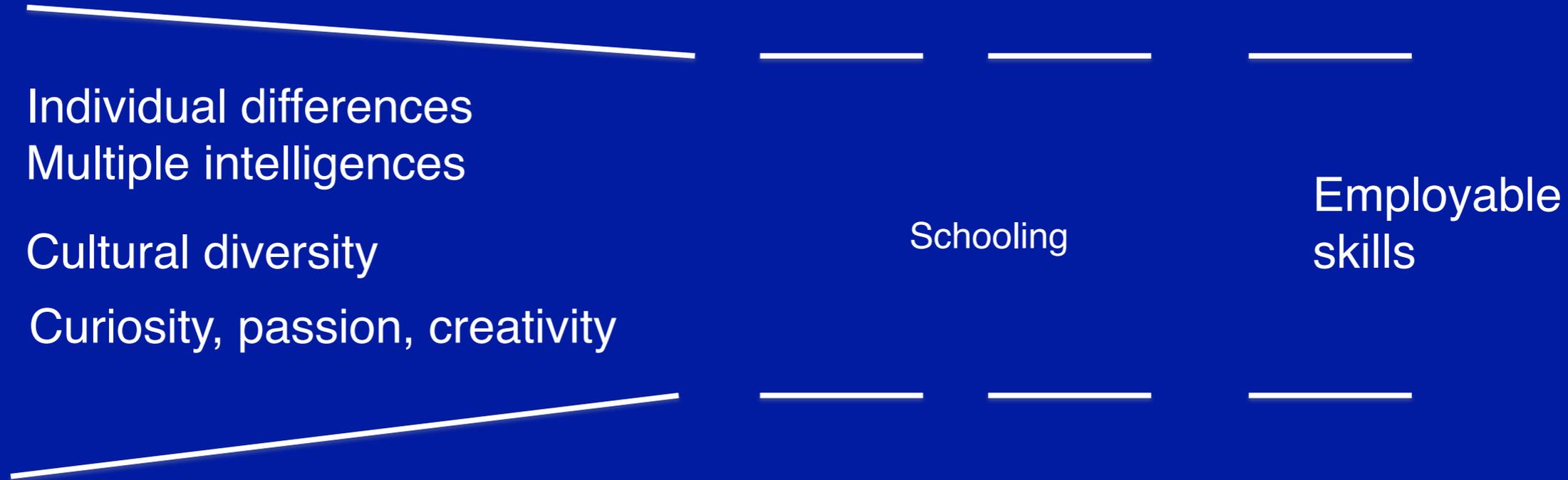
Passion

Creativity

Motivation



It is a miracle that curiosity survives formal education.
---Albert Einstein



From Accident to Design: Students as Global Entrepreneurs

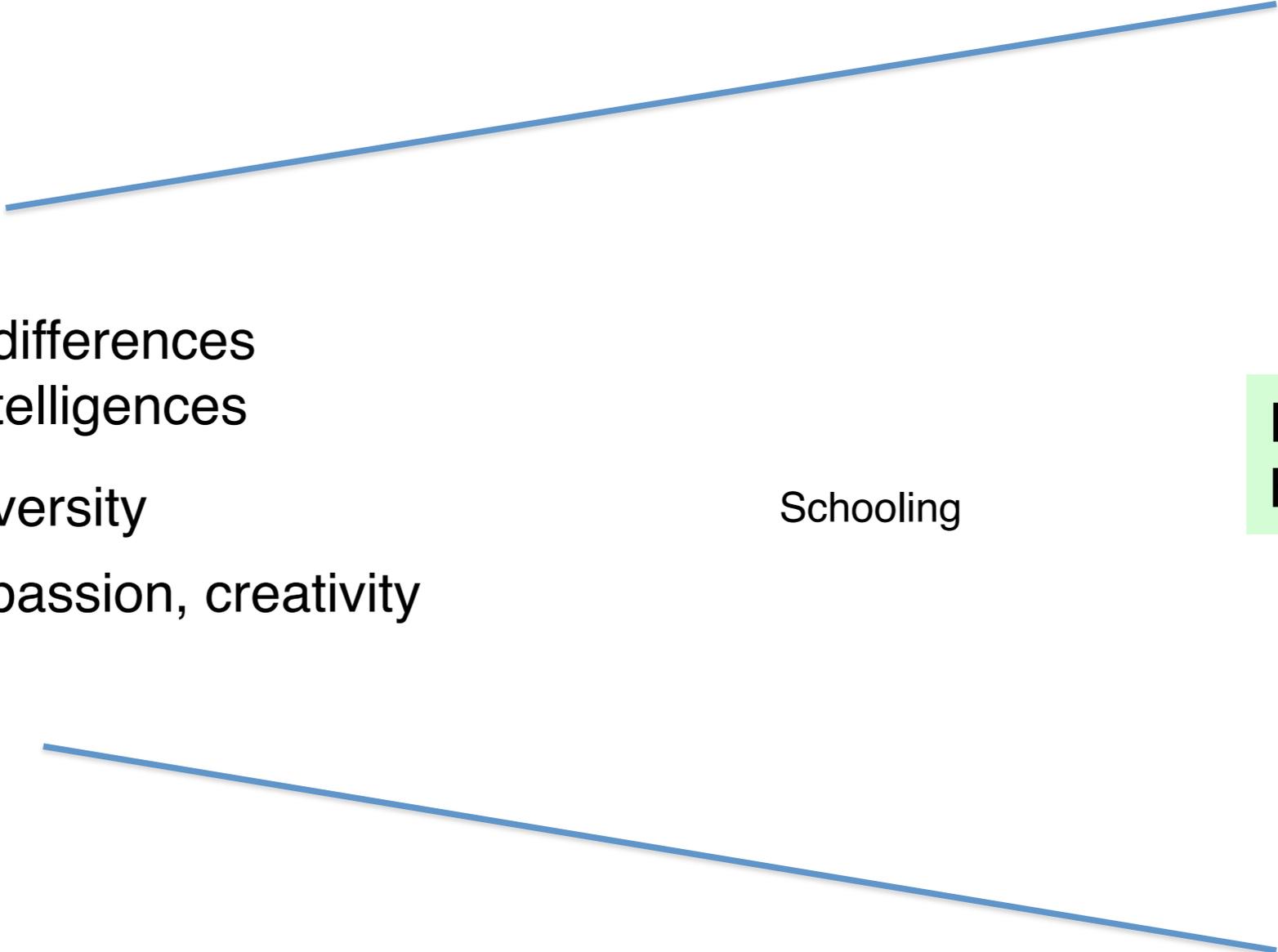
Individual differences
Multiple intelligences

Cultural diversity

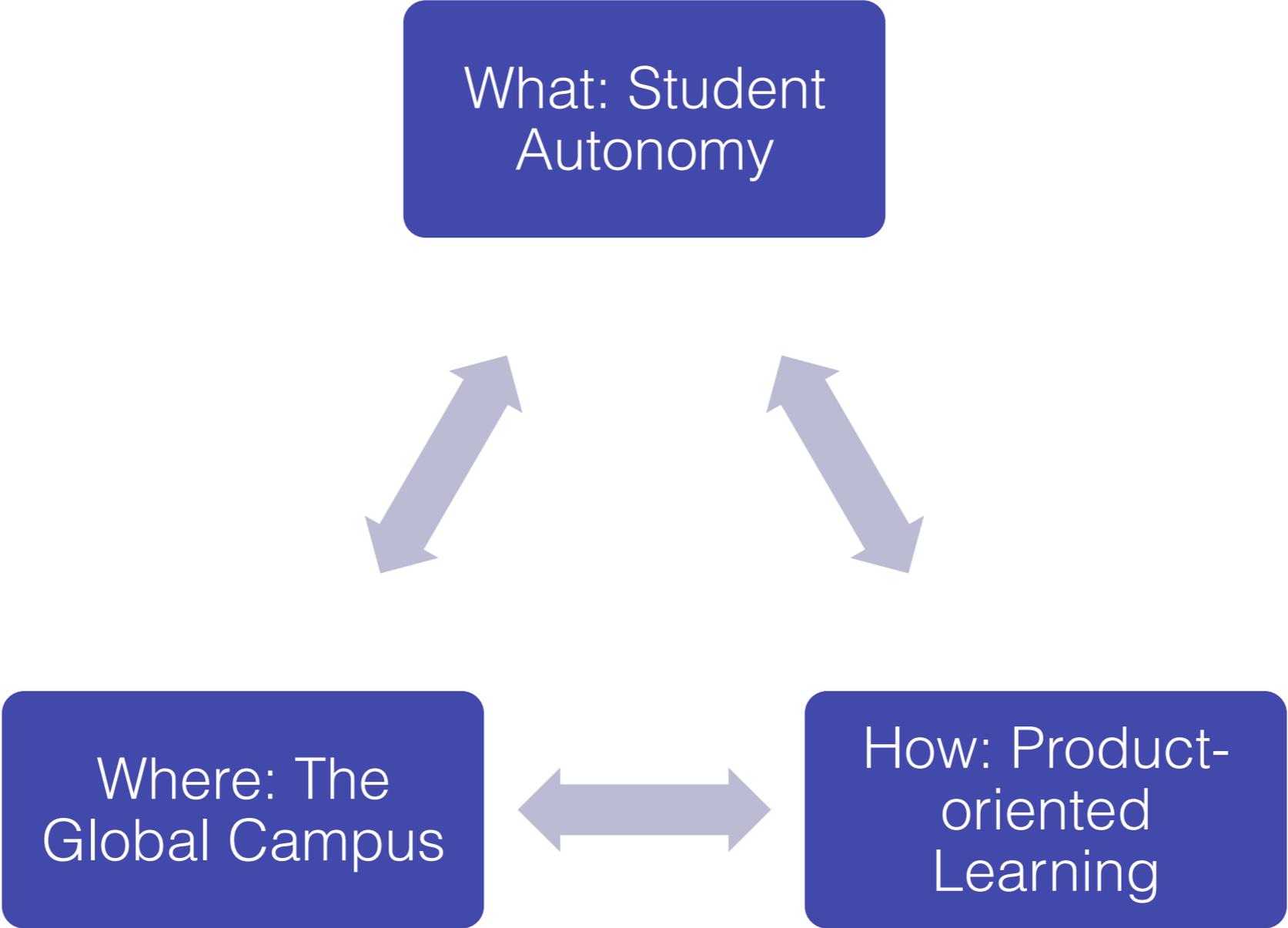
Curiosity, passion, creativity

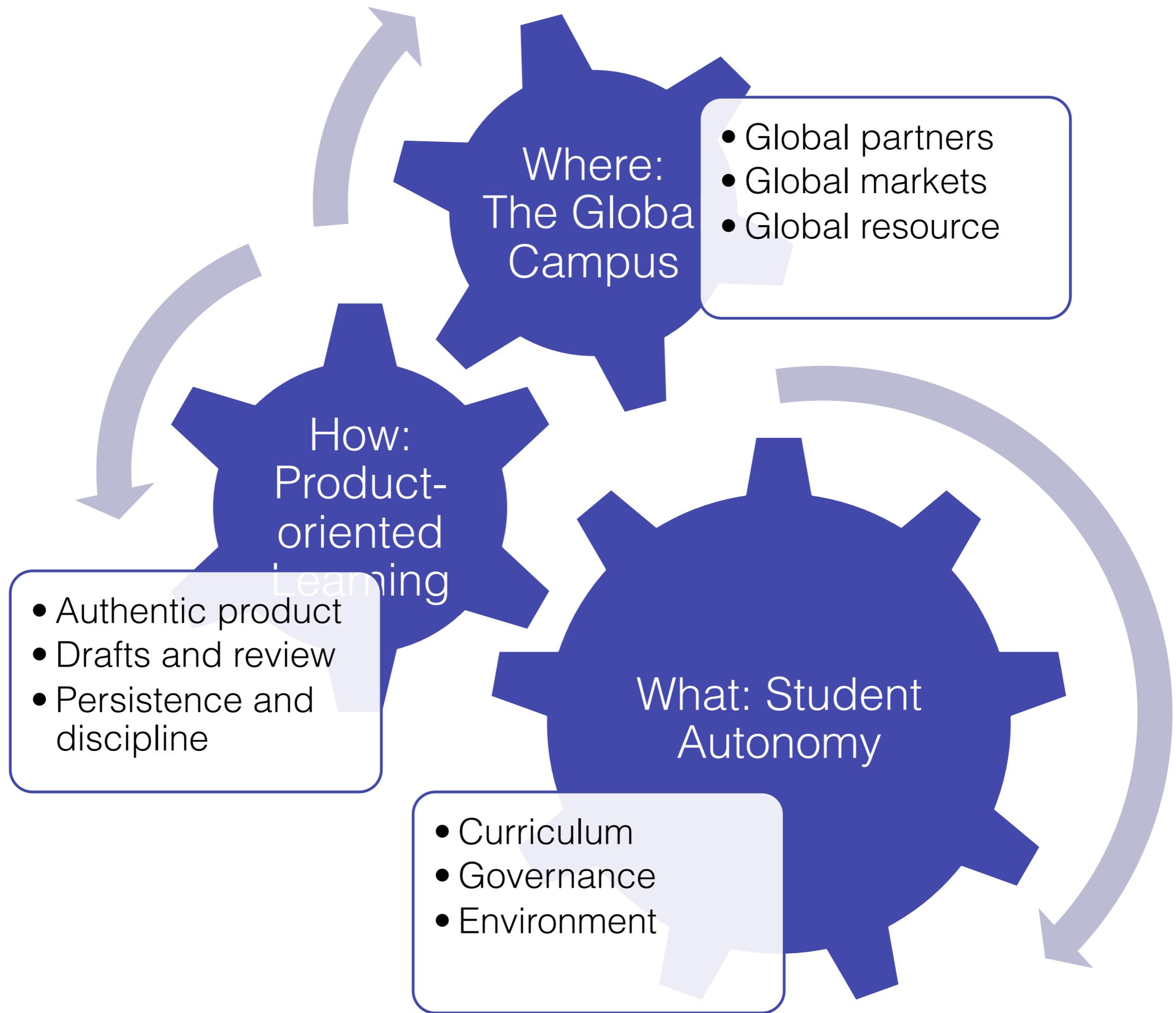
Schooling

Enhanced
Human Talents



Entrepreneurship-oriented Education





OBA

<http://globaleducation.uoregon.edu>

<http://zhaolearning.com>