

If you don't lead with Small Data,
you'll be led by Big Data

uLearn 2018

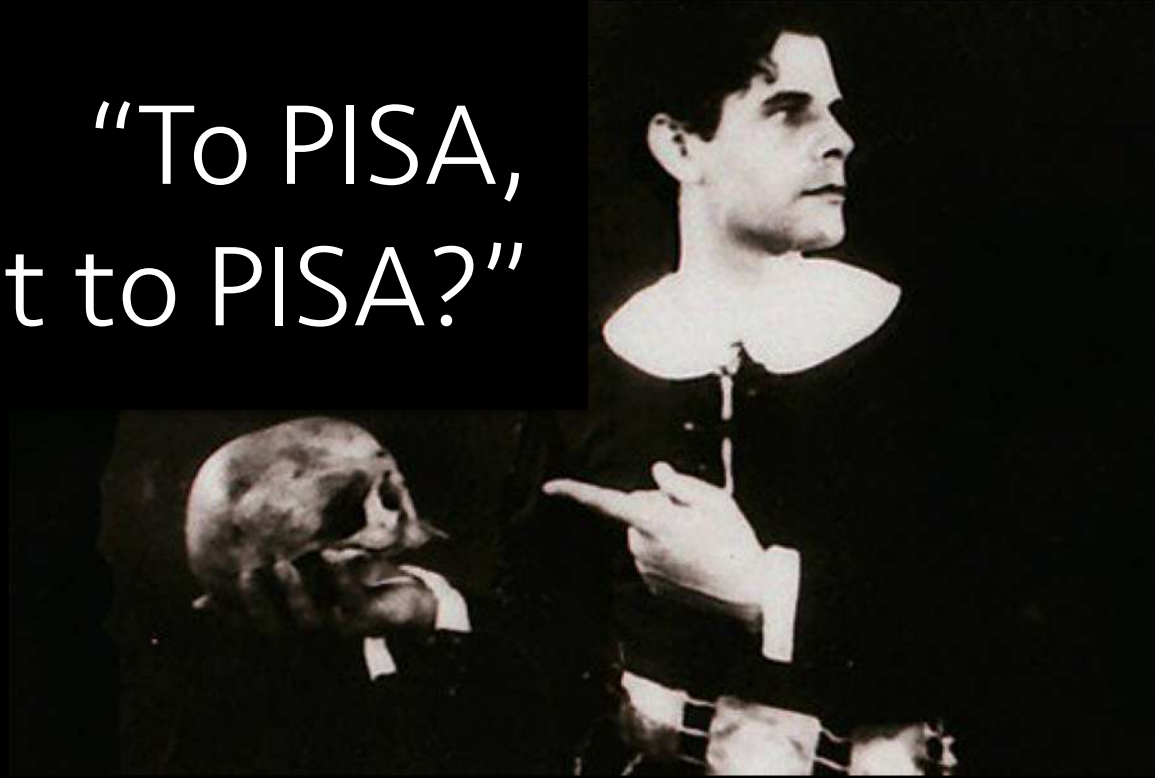
Auckland, NEW ZEALAND

11th October 2018



pasi_sahlberg

“To PISA,
or not to PISA?”

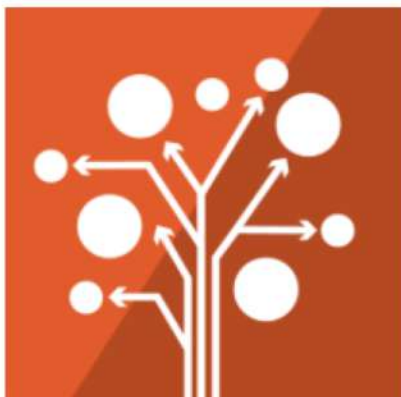


Education GPS is *the* OECD source for internationally comparable data and analysis on education policies and practices, opportunities and outcomes. Accessible any time, in real time, the Education GPS provides you with the latest information on how countries are working to develop high-quality and equitable education systems.



Analyse by country

Choose from a wide variety of themes and data to create your own, customised country reports.



Explore data

... By topic and by publication. Compare countries' by their success in providing a high-quality education for all.

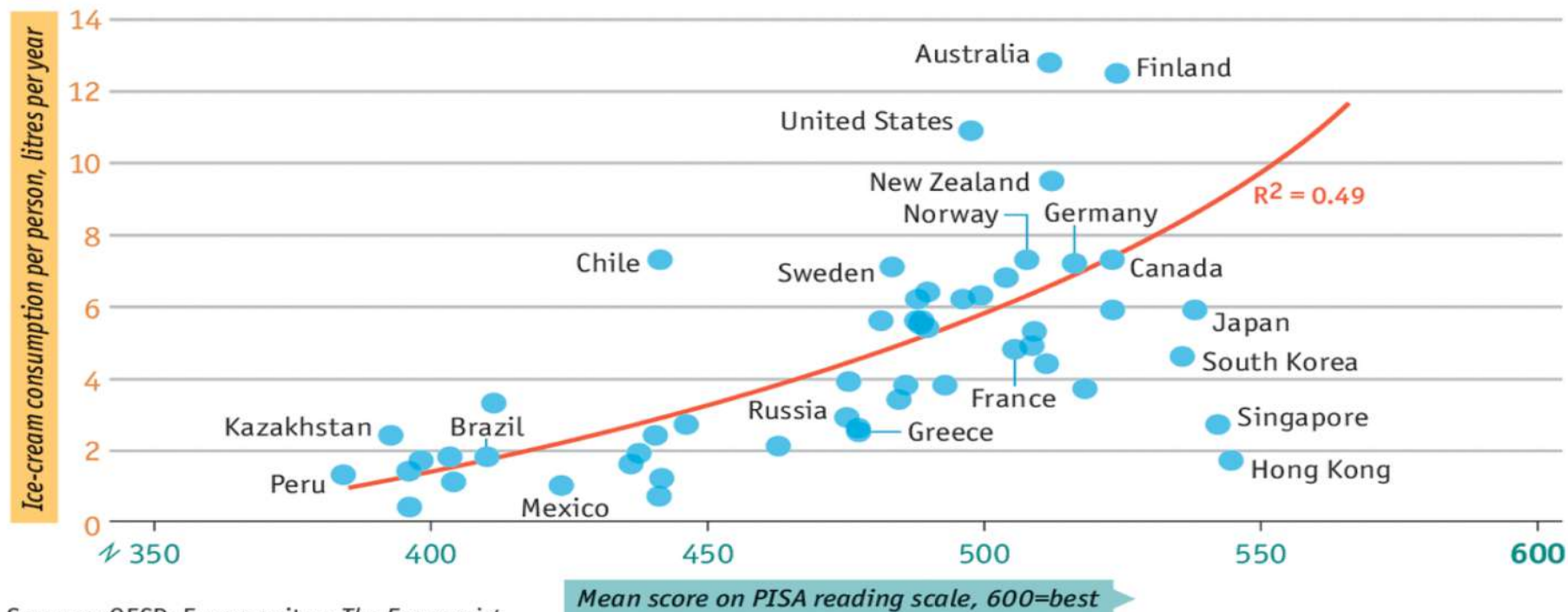


Review education policies

Examine the OECD's extensive research and analysis of education policy around the world.

Ice-cream consumption and PISA educational performance scores

2012



Sources: OECD; Euromonitor; *The Economist*

Team	Opposition	Date
<ul style="list-style-type: none"> Lions 	<ul style="list-style-type: none"> Cheetahs Chiefs Cruisers Highlanders Hurricanes Kings Sharks Stommers Sunwolves 	<ul style="list-style-type: none"> 19-Mar-16 18-Mar-16 16-Mar-16 01-Apr-16 12-03-16 20-01-16 23-Apr-16 09-Apr-16 16-Apr-16 27-02-16

TACKLE COMPLETION %

TACKLES MADE

86

PER MATCH

86.4



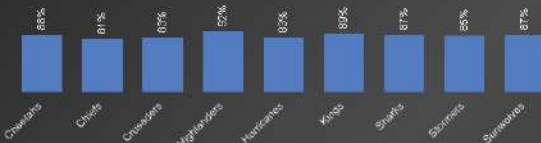
TACKLES MISSED

15

PER MATCH

13.9

Tackle Completion Trend Analysis

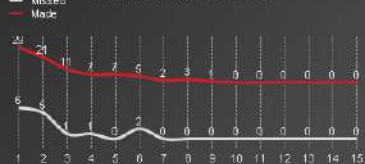


AI Phases	Set Piece	Open Play	Unstructured Play	Quarter	Ruck Speed	Gain Line Success	Line Speed	Line Set Up	Line Shape	Line Spacing	Opposition Play	Opposition Alignment	Direction Of Play	Play Target	Number Of Passes	Total
	Kick Off	Turnover Defence	Opposition Quick Throw...	4th Quarter	Quick Ball	Over Advantage Li...	Aggressive	Connected	Straight Up	Good	Wide Play	30 Deg	Same Direction	9-10 Channel	2	Wide Play
	3	1	2	11	5	6	7	7	3	5	3	4	3	6	3	0
	20%	7%	13%	73%	33%	40%	47%	47%	20%	33%	20%	27%	20%	40%	20%	0%

Tackle Missed % by Phase



Tackles Made vs Tackles Missed



Tackle Completion % Phase



Rugby players join big data battle over ownership and exploitation of personal information

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10 APRIL 2018 • 6:48PM

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Save 1



Bristol use drones for tactical analysis CREDIT: JAY WILLIAMS FOR THE TELEGRAPH

Big Data

“Extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions.”

Data mining

“The process of sorting through large data sets to identify patterns and establish relationships to solve problems through data analysis.”

Learning analytics

“The measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.”

“Learning to use a “computer” of this scale may be challenging. But the opportunity is great: The new availability of huge amounts of data, along with the statistical tools to crunch these numbers, offers a whole new way of understanding the world. Correlation supersedes causation, and science can advance even without coherent models, unified theories, or really any mechanistic explanation at all.”

–Chris Anderson, Wired 2008

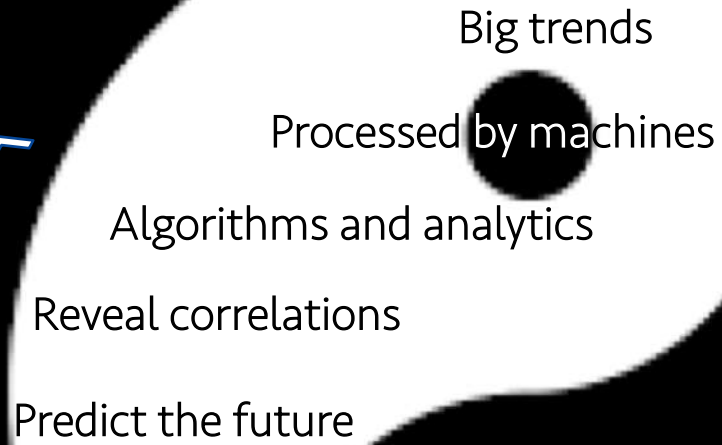
Which one was made by AI?



X

Can Big Data make
education smarter?

BIG DATA

A large Yin-Yang symbol is centered on the page. The white (Yang) side contains the text: "Big trends", "Processed by machines", "Algorithms and analytics", "Reveal correlations", and "Predict the future". The black (Yin) side is empty.

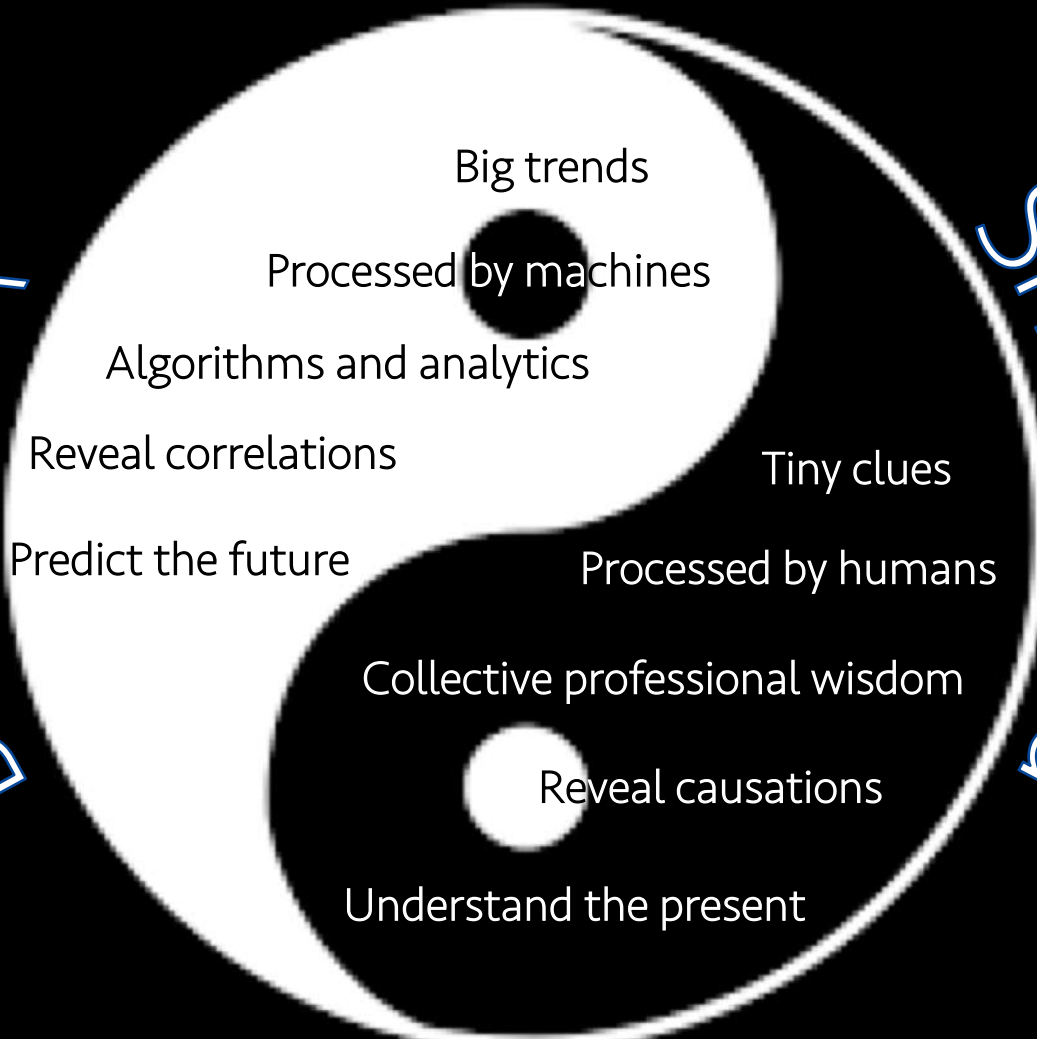
Big trends
Processed by machines
Algorithms and analytics
Reveal correlations
Predict the future

What is missing?

Small data?

BIG DATA

small data



Big trends

Processed by machines

Algorithms and analytics

Reveal correlations

Predict the future

Tiny clues

Processed by humans

Collective professional wisdom

Reveal causations

Understand the present

Gonski Institute for Education

NATIONAL EDUCATION

Adrian Piccoli's new institute to look at education's trickiest questions

By [Pallavi Singhal](#)

Updated 5 March 2018 –
10:11am, first published at
12:01am



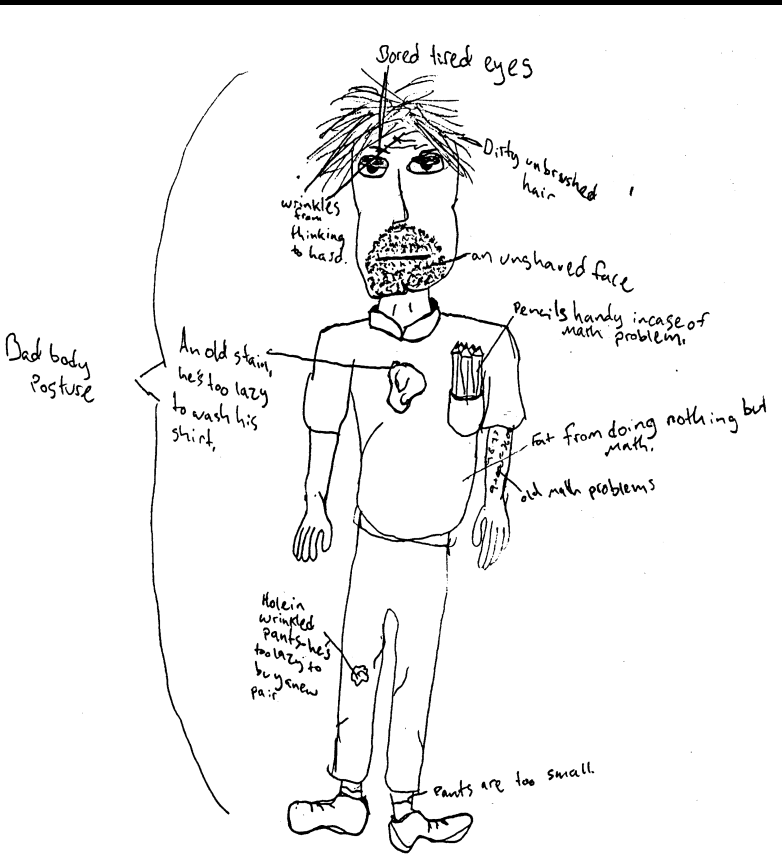
Whether the ATAR system is discouraging hard work, why some of the top Australian students have declining results and whether families need to play a bigger role in education are some of the thorny questions a new high-profile group of education experts and industry leaders is hoping to answer.

The University of NSW's Gonski Institute for Education, which is led by former NSW education minister Adrian Piccoli and includes Finland's Pasi Sahlberg, will hold its first advisory board meeting on Monday.

"One of the aspects that makes us a little bit different is that we'll use the best people from different faculties and take an interdisciplinary approach, because some of the problems we're dealing with are not just limited to schools," Mr Piccoli said.

Why so many kids don't like mathematics?

Research question: “What does a mathematician at work look like?”



Usually fat male

Unstylish

No friends - except other mathematicians

No romantic relationships or social life

Wrinkles in their forehead from thinking so hard

Very short tempers

What can you do?

Build trust-based professionalism.

Professional wisdom as evidence.

Lead with Small Data.

Whakawhetai ki a koe



pasi_sahlberg