

Learning in the Age of Artificial Intelligence

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GHR Forum
Seoul
November, 2020

Mathematics Education in Korea

	Mean score in PISA 2012		Mean score		FOR 2010 Mathematics results by
OECD average	494			1.	China (Beijing, Shar 591
Shanghai-China	613			2.	Singapore 569
Singapore	573	Singapore	564	3.	Macao 558
Hong Kong-China	561	Hong Kong (China)	548	4.	Hong Kong, China 551
Chinese Taipei	560	Quebec (Canada) ¹	544	5.	Taiwan 531
Korea	554	Macao (China)	544	6.	Japan 527
Macao-China	538	Chinese Taipei	542	7.	South Korea 526
Japan	536	Japan	532	8.	Estonia 523
Liechtenstein	535	B-S-J-G (China)	531	9.	Netherlands 519
Switzerland	531	Korea	524	10.	Poland 516
Netherlands	523	British Columbia (Canada)	522	11.	Switzerland 515
Estonia	521	Flemish community (Belgium)	521	12.	Canada 512
Finland	519	Switzerland	521	13.	Denmark 509
Canada	518	Estonia	520		Slovenia 509
Poland	518	Bolzano (Italy)	518	15.	Belgium 508
Belgium	515	Navarre (Spain)	518	16.	Finland 507
Germany	514	Trento (Italy)	516	17.	Sweden 502
Viet Nam	511	Canada	516		United Kingdom 502
Austria	506	Netherlands	512	19.	Norway 501
Australia	504	Alberta (Canada)	511		
Ireland	501	Denmark	511		
Slovenia	501				

Figure: PISA results, 2012, 2015, 2018

Teacher Resources



Figure: Seoul Centre for Teacher Development

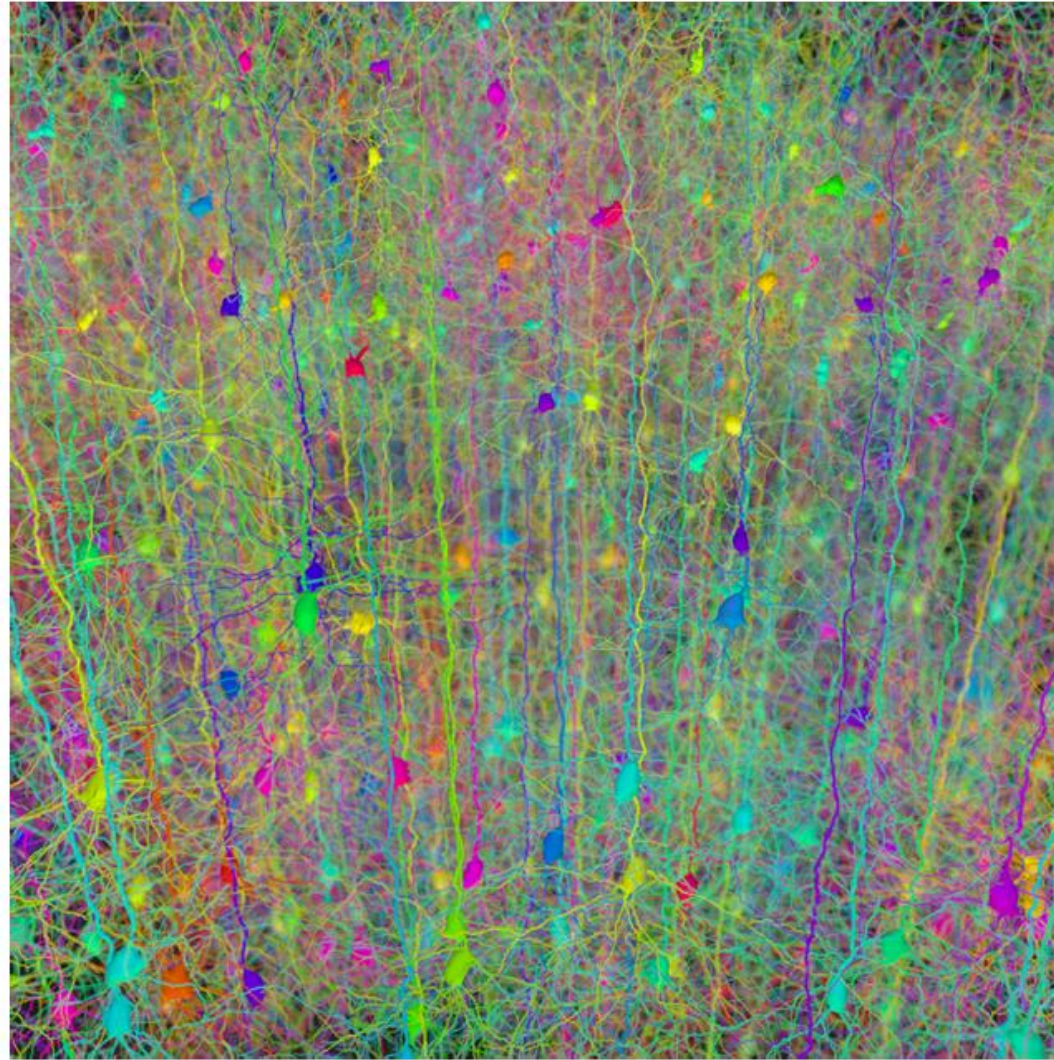


Figure: Computer Simulation of Pyramidal Neurons

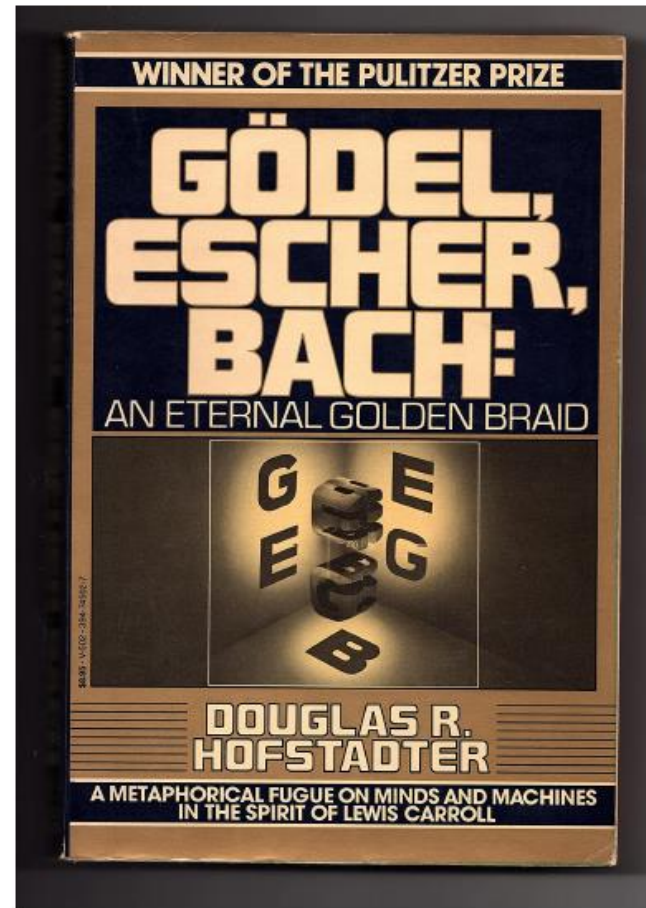


Figure: Gödel, Escher, Bach by Douglas Hofstadter

Limits of Materialism?

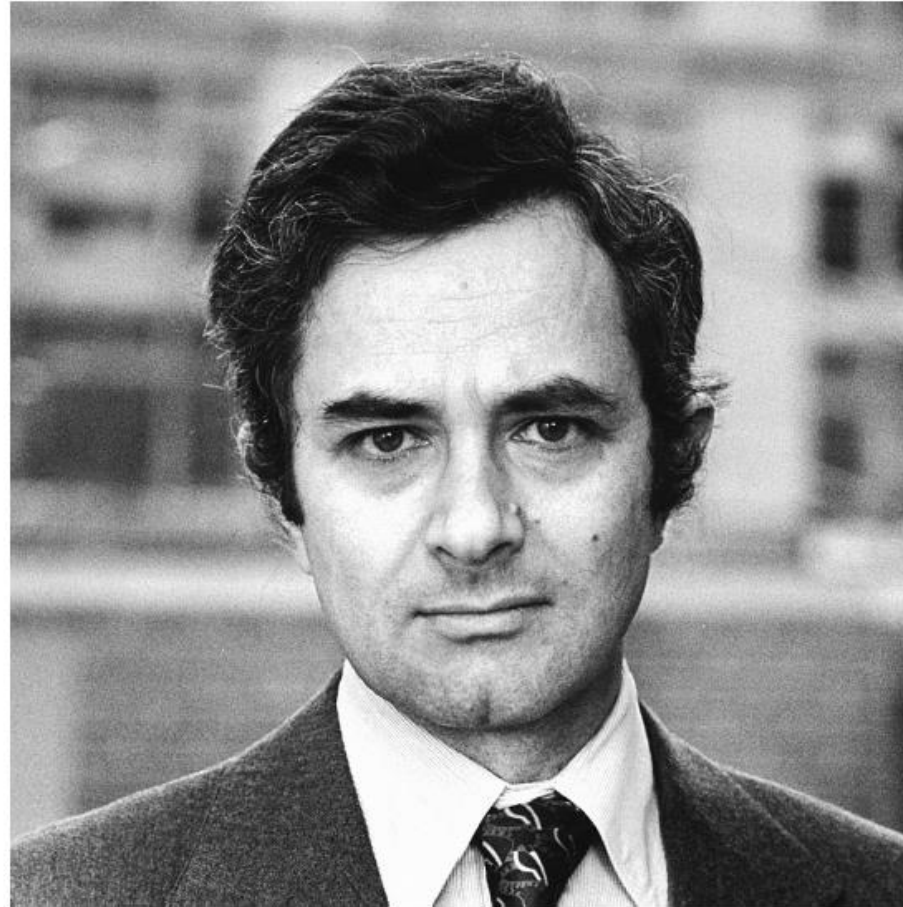


Figure: Thomas Nagel (1937–)

Unreasonable Effectiveness

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Terrence J. Sejnowski

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Abstract

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Figure: Paper by Computational Neurobiologist Terrence Sejnowski, January, 2020

The Human Mind



Figure: William Wordsworth (1770-1850)

The Human Mind

*Prophets of Nature, we to them will speak
A lasting inspiration, sanctified
By reason and by truth; what we have loved
Others will love, and we may teach them how:
Instruct them how the mind of man becomes
A thousand times more beautiful than the earth
On which he dwells, above this frame of things
(Which, 'mid all revolutions in the hopes
And fears of men, doth still remain unchanged)
In beauty exalted, as it is itself
Of substance and of fabric more divine.*

Wordsworth, *The Prelude*, Book 13