



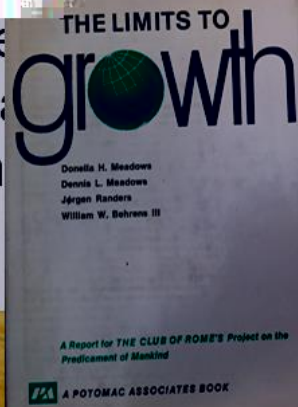
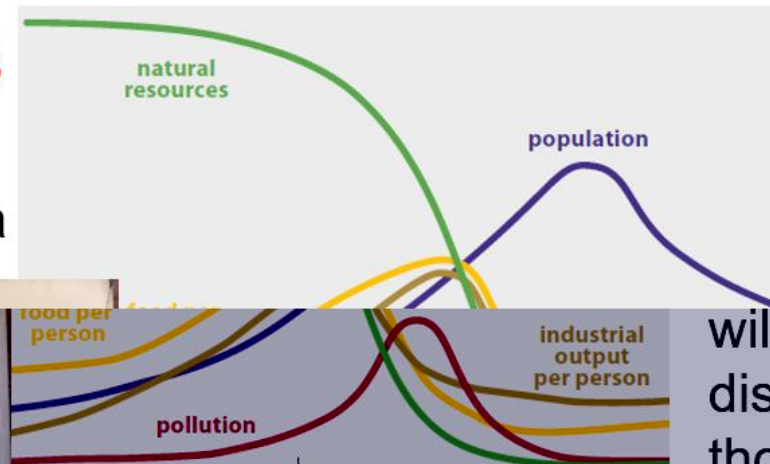
**Forum on Sustainable  
Development**  
Prague, November 22nd, 2019.

# SDGs and AI are reshaping the Economy of CEE!?

Sándor Kerekes  
Professor Emeritus  
Budapest Corvinus University  
[Sandor.kerekes@uni-corvinus.hu](mailto:Sandor.kerekes@uni-corvinus.hu)

# "1972. The Limits to Growth" (12 000 000 in 37)

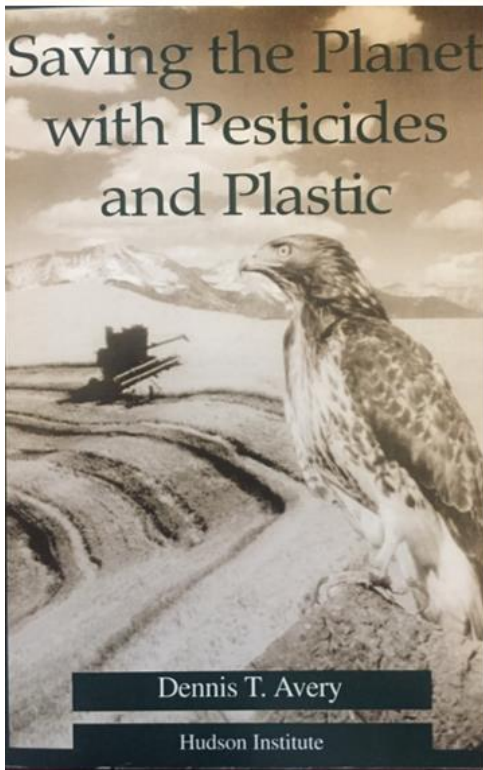
*Family Circle* magazine made in choosing a **woman with four children** as its **"Homemaker of the Year."** In a **1970** letter addressed to the magazine she writes: If your homemaker of the year feels any responsibility to the human society of the future, she would not have more than two children. **If she loves children and wants more than two, she can fill a great social need by adopting them.** If she is a real citizen of this country and this world she



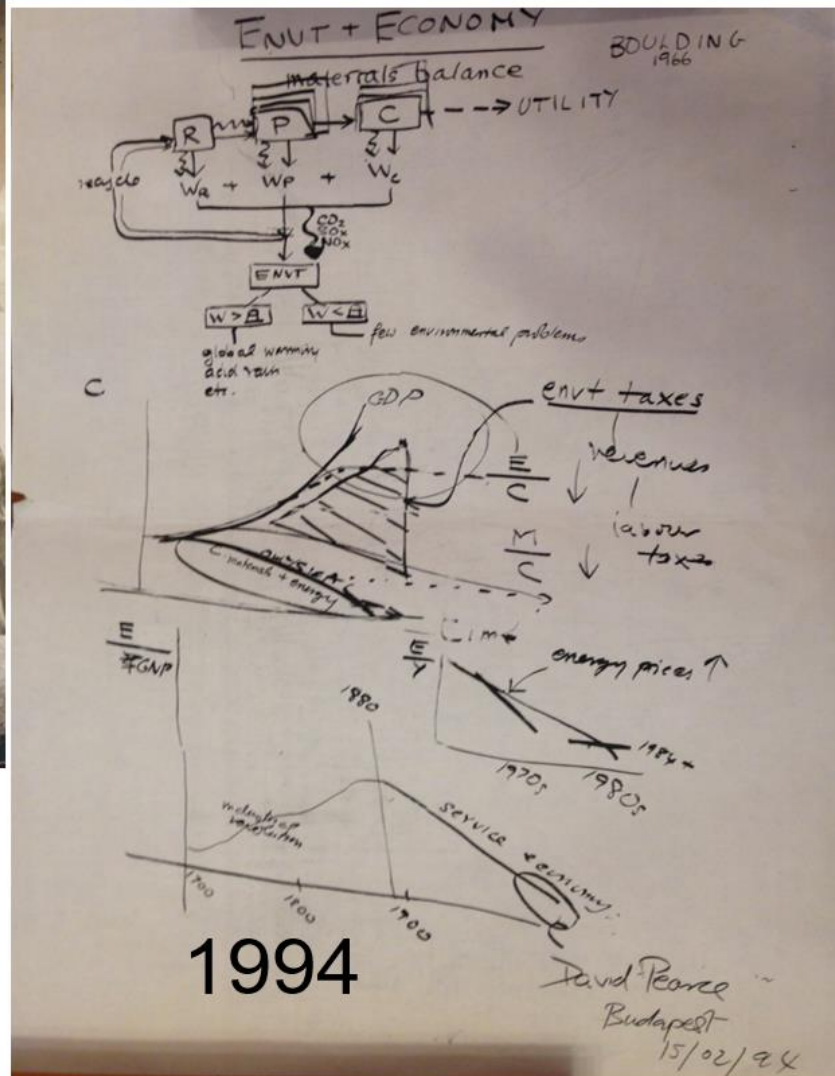
**Donella H. Meadows**  
**Dennis L. Meadows**  
**Jorgen Randers**  
**William W. Behrens III**



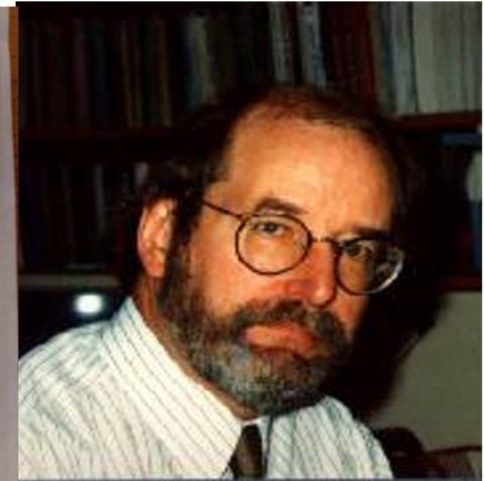
# Lesson learnt from David Pearce in 1994



1995

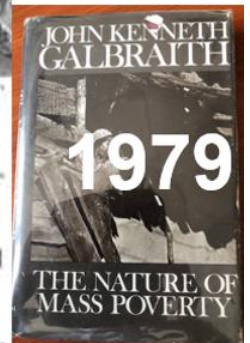
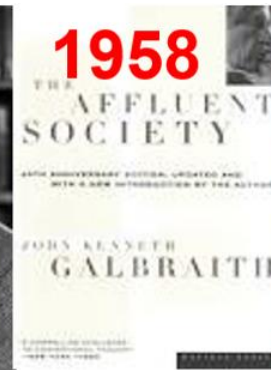
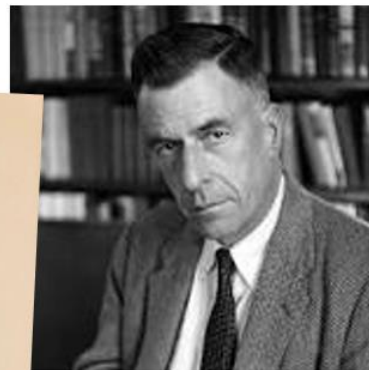
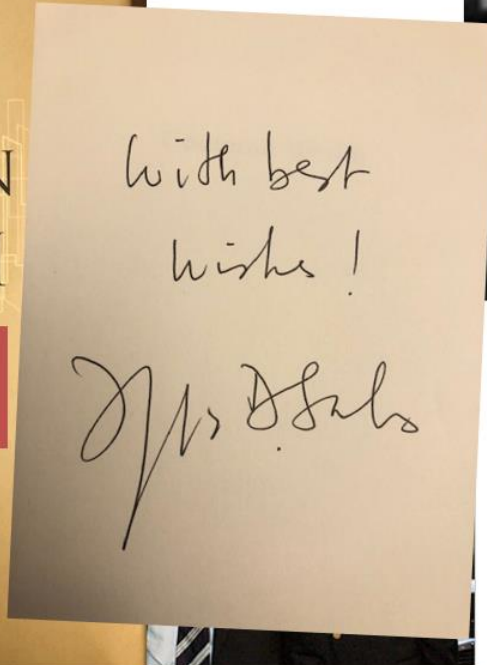
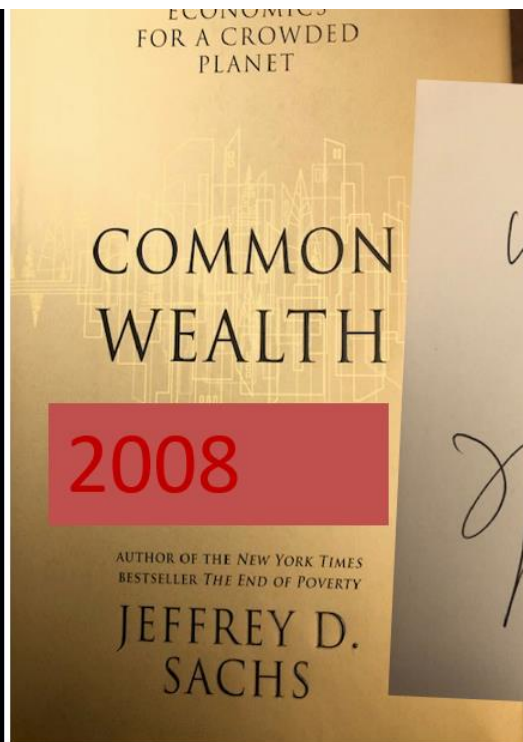


1994

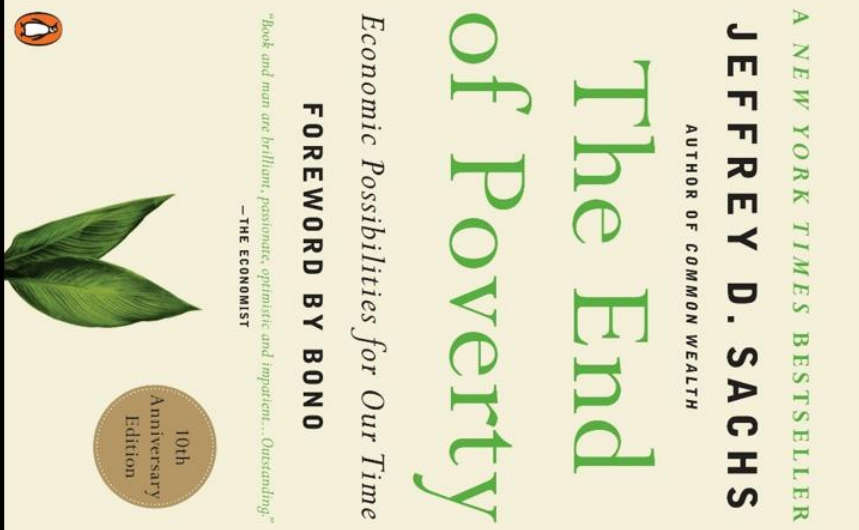


**David William Pearce,**  
1941-2005

- Circular economy
- Decoupling
- Flow or service economy



“They’re not engaged in the problems of the actual world,” said James K. Galbraith, voicing an all-too-common complaint that much of the Nobel-anointed economic work seems out of touch with reality. “certain branches of economics have been more or less excluded,” citing as examples work on poverty, inequality, the economics of climate change, the collapse of communist economic systems and debt crises. Mr. Galbraith needed to look no farther than his own dinner table for evidence. His father, John Kenneth Galbraith, never won the prize.





In Year  
2000  
8 MDGs  
for 2015

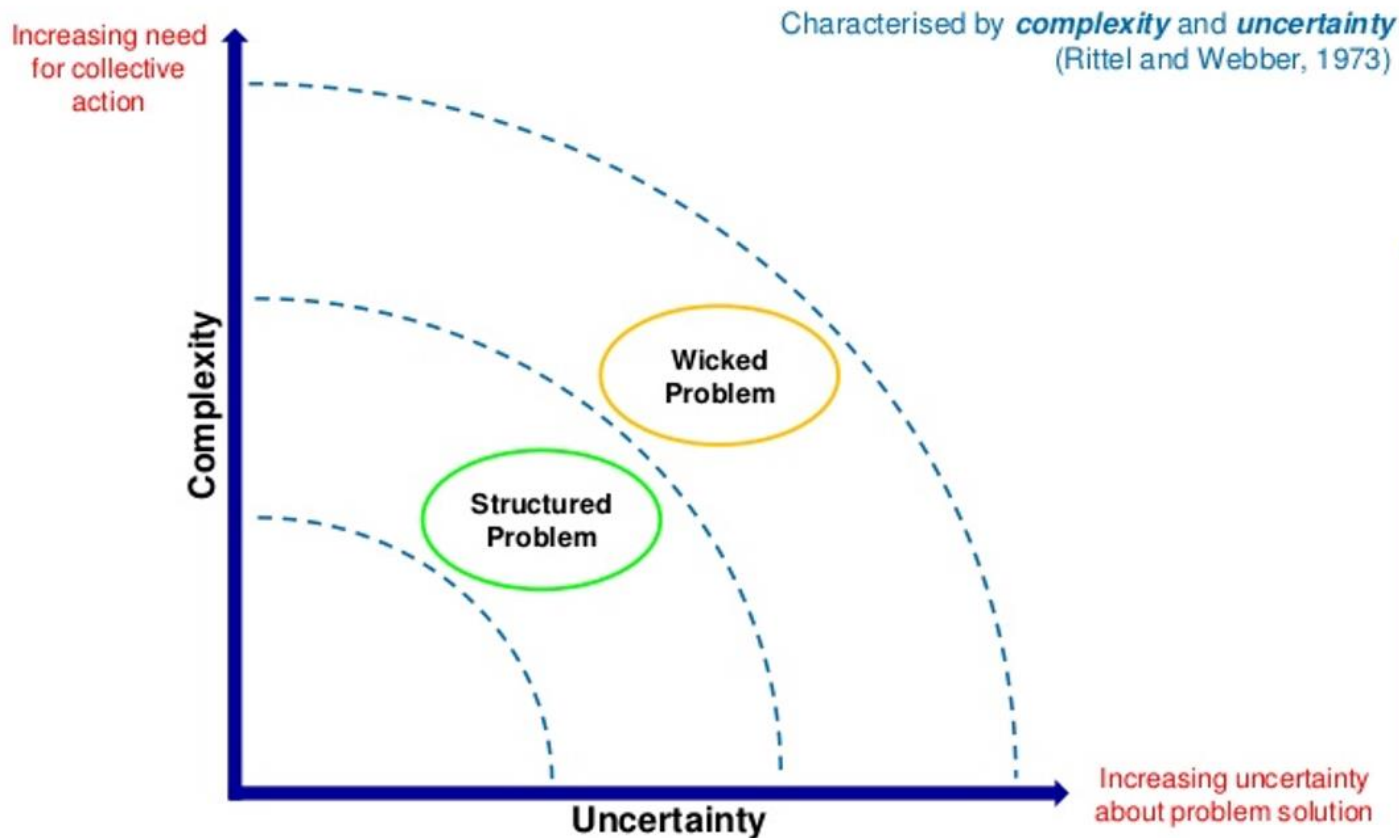


More **goals**,  
more  
**agencies**,  
endangered  
**holism**

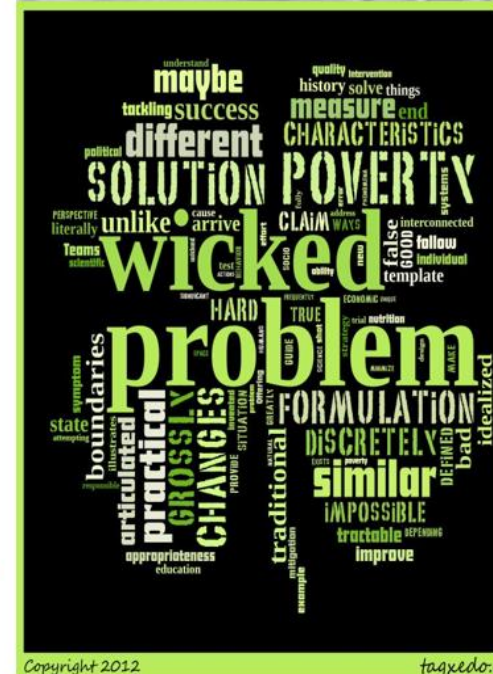
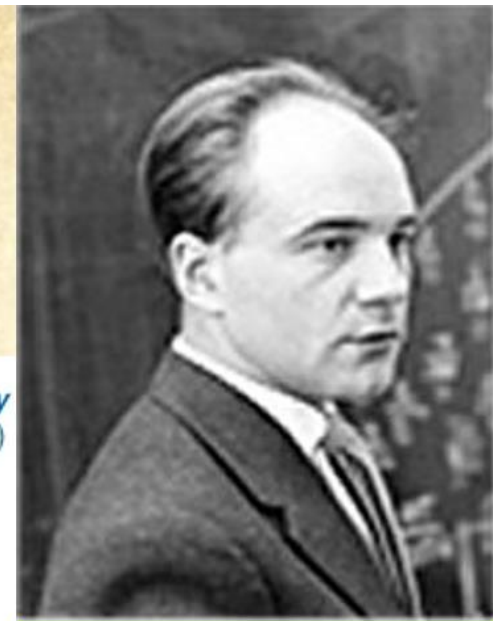
In Year  
2015  
17 SDGs  
for 2030



# Almost all of the social problems are wicked. They are complex and uncertain!



Rittel, H. and Webber, M. (1973) Dilemmas in a General Theory of Planning. *Policy Sciences*. Vol.4: 155-169



Copyright 2012

tagged-o

CORVINUS UNIVERSITY of BUDAPEST

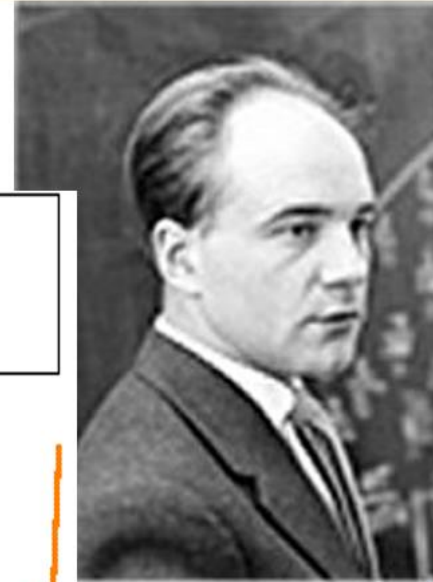
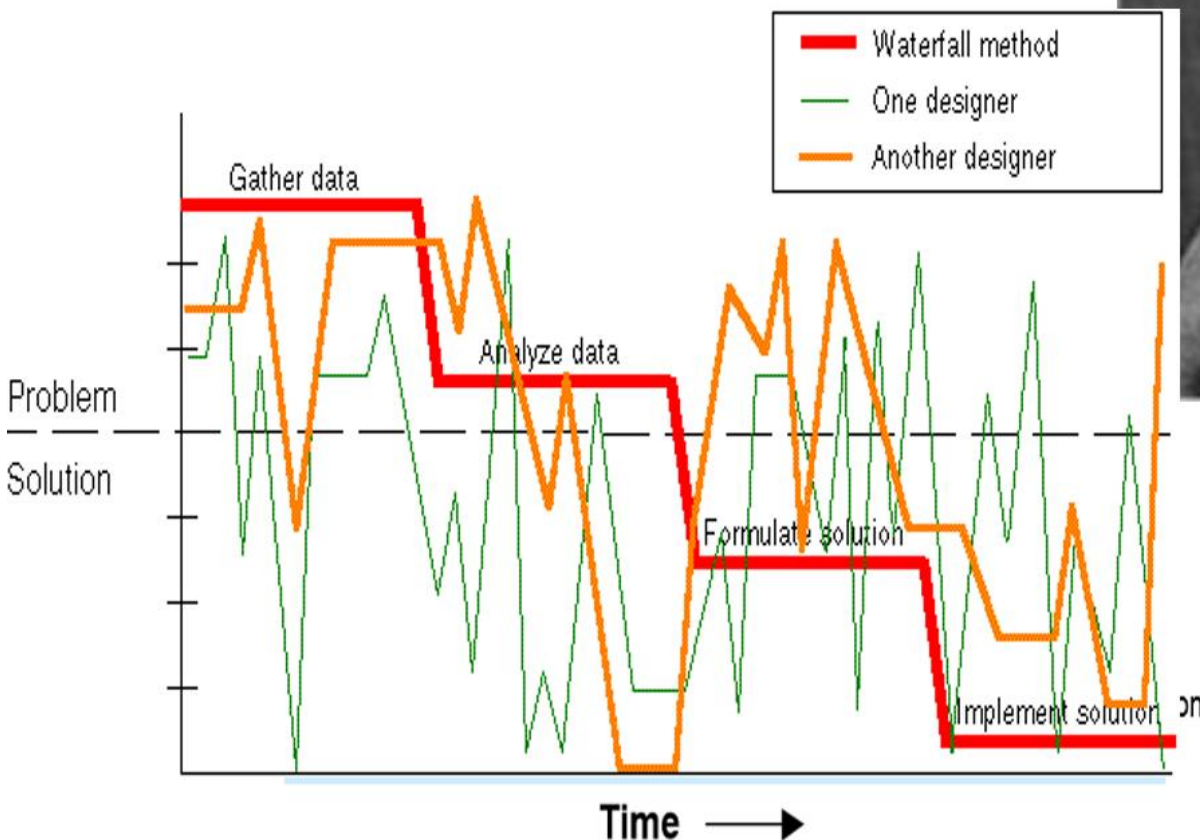
Department of Environmental Economics and Technology



# Rittel-Webber Dilemma of Social Planning 1973!

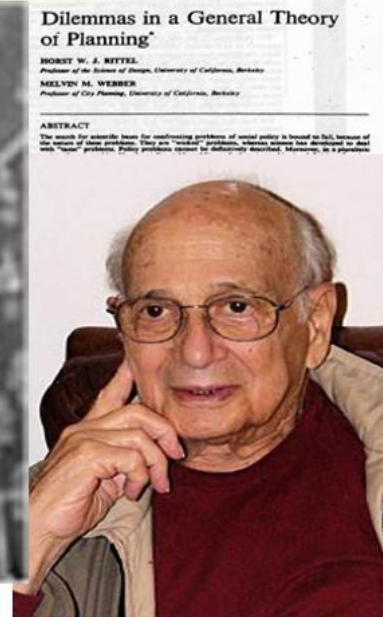
We can train experts only for the tame problems but not for the wicked problems

## Wicked Problems and Social Complexity



**Horst Rittel**

1930 Berlin  
1990 Heidelberg



**Melvin Webber**

1920 Hartford,  
Connecticut  
2006 Berkeley

Rittel, Horst and Melvin Webber (1973)  
"Dilemmas in a General Theory of  
Planning," *Policy Sciences* 4, Elsevier  
Scientific Publishing, Amsterdam, pp. 155-  
159. Also Reprint No. 86, The Institute of  
Urban and Regional Development,  
University of California, Berkeley, California.  
<http://www.cognexus.org/id42.htm>



**Something has happened! SDGs became mainstream, like the renewable energy!**



**Jeffery Sachs**



**Bill Gates**

**Bill Gates, Jeffery Sach, UN and even the new Nobel laureates are focusing for SDGs**



**Abhijit Banerjee**

**Esther Duflo**

**Michael Kremer**

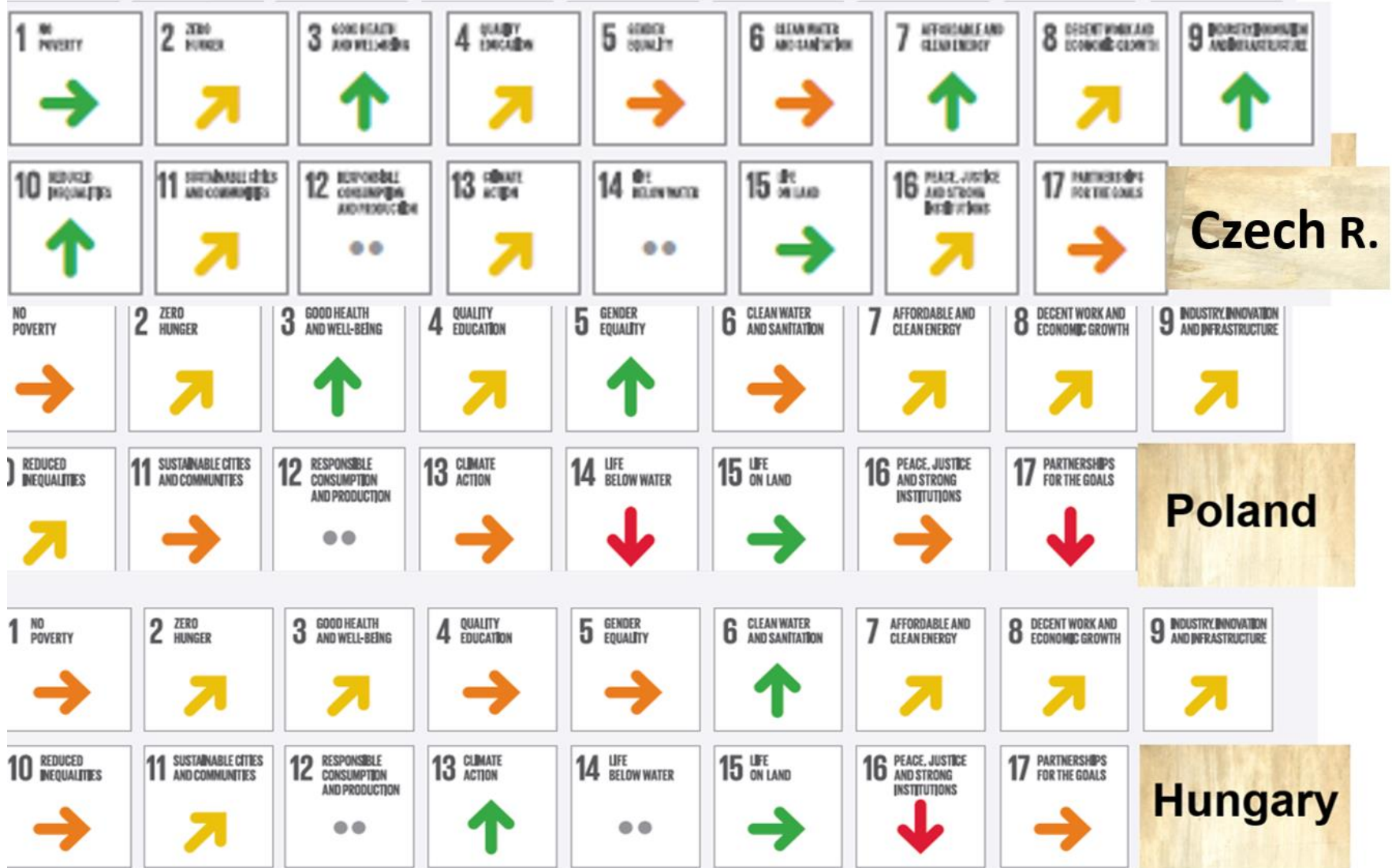


## Some Macroeconomic OECD data based on 2017;2018;2019 statistics and PwC estimates

	Population in Million	GDP per capita	Most important industries (based on PwC)	GDP per hour worked	Unemp- loyment rate 2019	Personal internet use %	SDG's Rank
<b>Czech Republic</b>	10,58	39 740	Automotive, Mining, Chemicals	43,6	3,2	87,21	13 78,7
<b>Hungary</b>	9,78	30 665	Automotive, Electronics, Pharma	37,7	3,6	79,50	26 75,0
<b>Lithuania</b>	2,84	35 210	Oil Refinement, Manufacturing, Food Export	44,6	9,2	80,50	36 72,9
<b>Poland</b>	37,97	30 988	Agriculture, Energy, Manufacturing (Automotive)	40,6	6.1	77,25	32 73,7
<b>Slovak Republic</b>	5,43	33 923	Automotive, Electrical Machinery, (Including Computers)	45,0	5,2	83,25	24 75,6
<b>Slovenia</b>	2,07	38 134	Mining, Manufacturing, Electricity	48,4	8,6	80,99	8 80,0

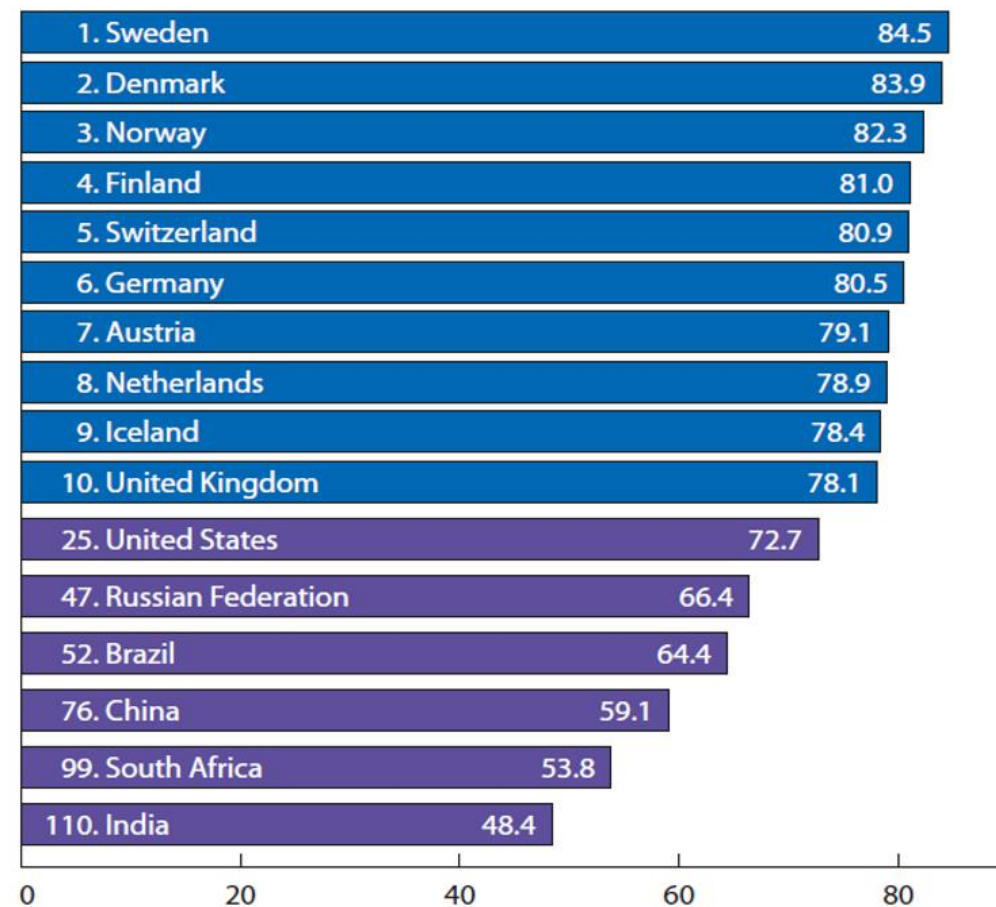
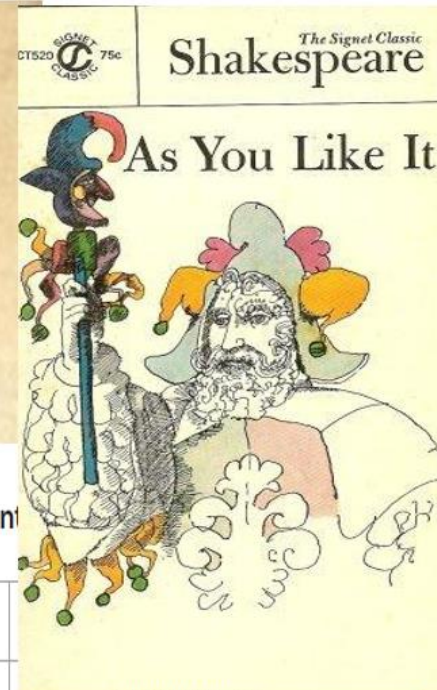
# 16. & 17. Goals: Russia like Poland and Hungary

 Decreasing  
 Stagnating  
 Moderately Increasing  
 On track  
 Maintaining SDG achievement

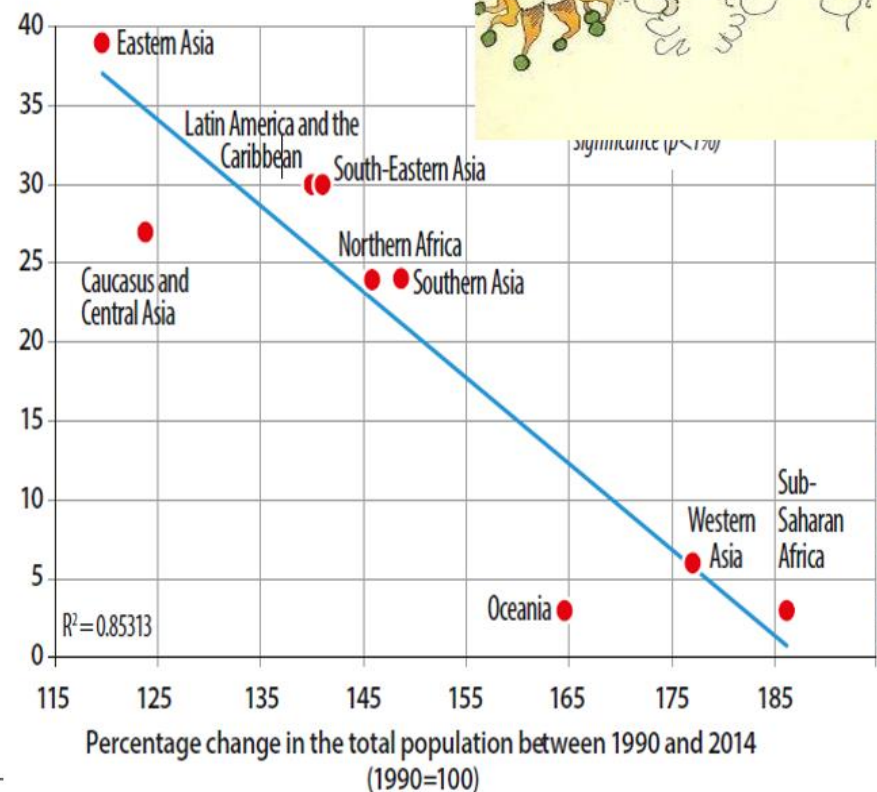




# Strong population growth is correlated with weak development!? Progress on the Millenium Development Goals!



Progress on the Millenium Development



**This Economy Is Not Aging Gracefully**  
The American population is getting older.

**Could robots save us?**



**Automation threatens 800 million jobs by 2030, but technology could still save us, says report of McKinsey Global Institute,**

By [James Vincent](#) Nov 30, 2017, 10:31am EST

- automation will also lead to more income inequality
- we need a Marshall plan for automation



<https://www.nytimes.com/section/opinion/sunday>



<https://www.theverge.com/2017/11/30/16719092/automation-robots-jobs-global-800-million-forecast>





*David H. Autor*

[MIT Department  
of Economics](#)

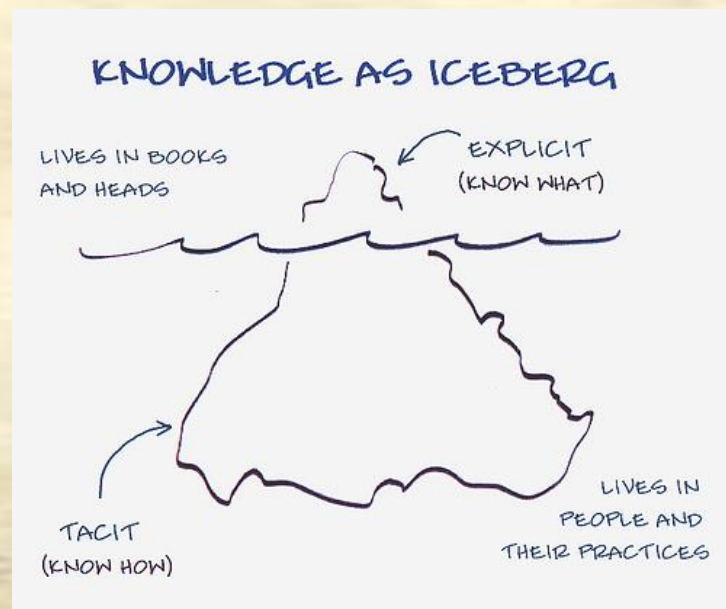
Cambridge, MA,  
United States

*Polanyi's Paradox and the  
Shape of Employment  
Growth by. **David H. Autor.***

As well-paid professionals settle in cities, they create a demand for services and new types of jobs. Autor calls these occupations “wealth work jobs,” which include employment for everything from baristas to horse exercisers.

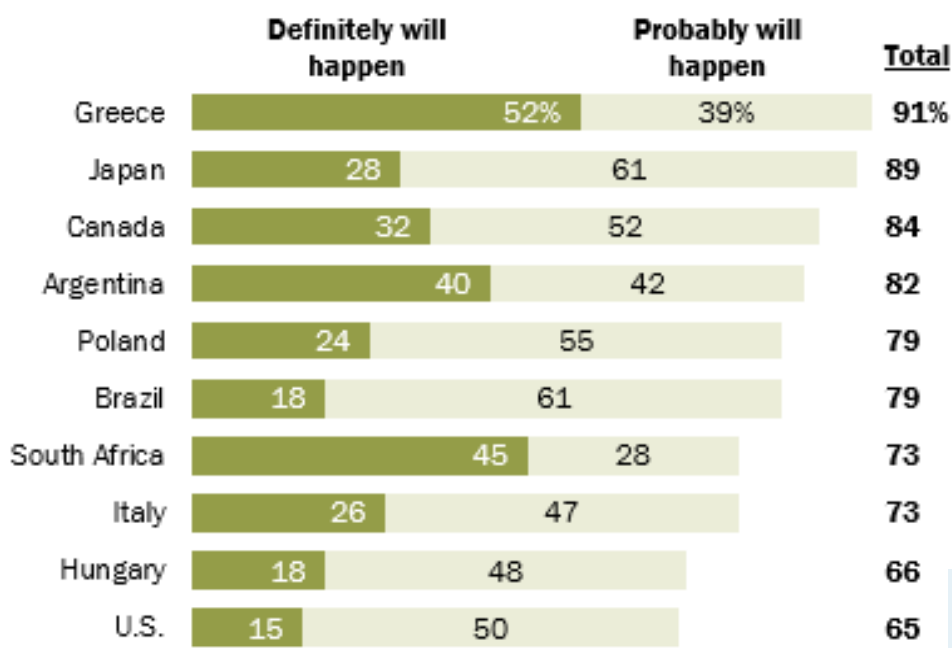
**Polanyi's Paradox** The problem of Tacit Knowledge, as identified by [Michael Polanyi](#) (David Autor)

In 1966, the philosopher Michael Polanyi observed, “We can know more than we can tell... The skill of a driver cannot be replaced by a thorough schooling in the theory of the motorcar; the knowledge I have of my own body differs altogether from the knowledge of its physiology.”



# Most think robots and computers will take over many jobs now done by humans

*How likely do you think it is that in the next 50 years, robots and computers will do much of the work currently done by humans?*

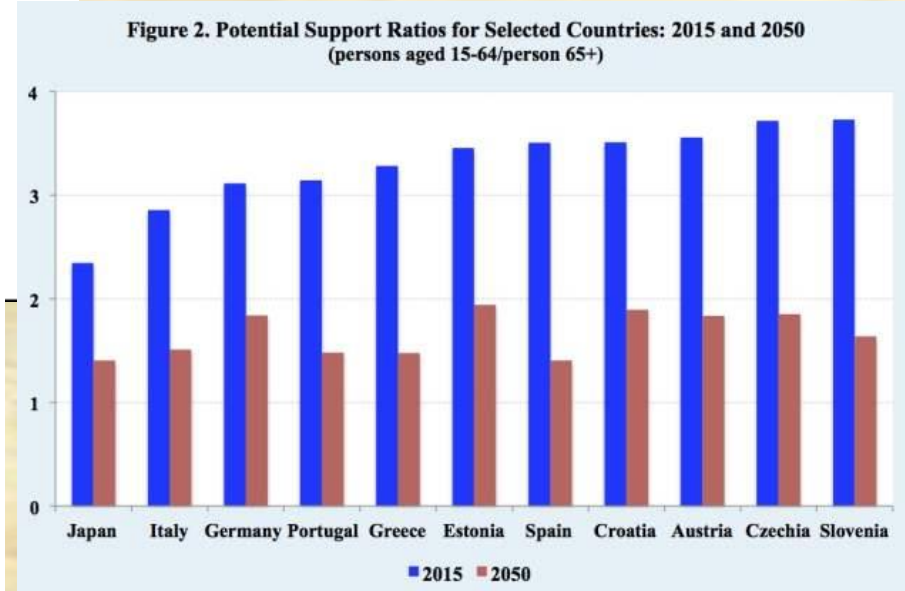


*„demographic shifts, not artificial intelligence, create the biggest challenges for today’s workplace.”*

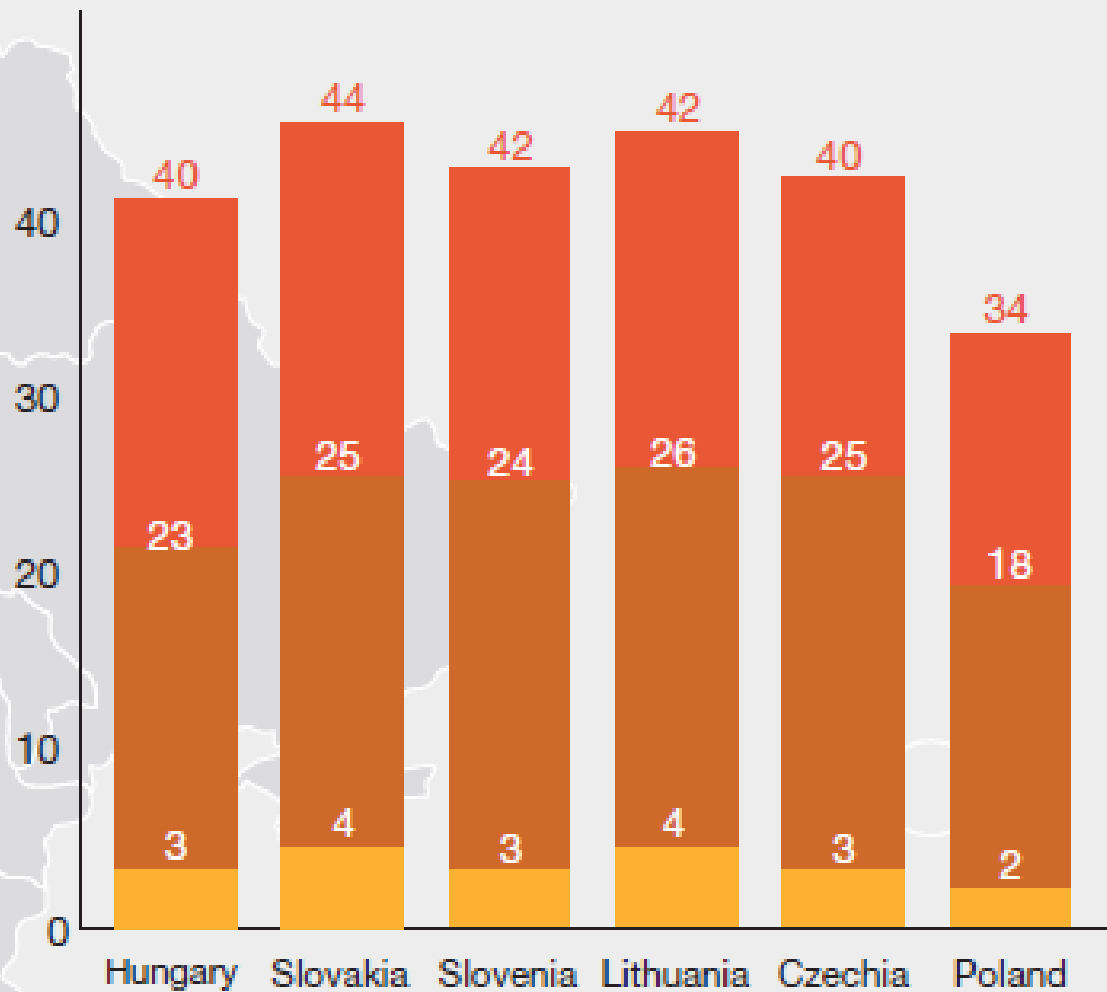
**March 7, 2019 | by Bill Snyder**

“Automation doesn’t generally eliminate jobs. Automation generally eliminates dull, tedious, and repetitive tasks. If you remove all the tasks, you remove the job. But that’s rare,”

**Hal Varian**







Algorithm wave   Augmentation wave   Autonomy wave

“Excessive automation at Tesla was a mistake. To be precise, my mistake. Humans are underrated,”



**Elon Musk**, the founder and chief executive of Tesla Motors, said last year.



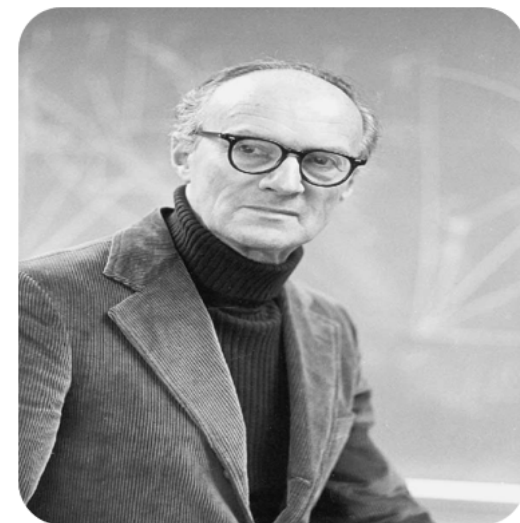
"I completely ignored the idle poor, the long-term unemployed and the unemployables whose inadequate upbringing made

them unfit for work; in short **all those who have more leisure than they know what to do with and suffer from uninterrupted chronic boredom,** a

deprivation as serious as starvation, with equally fatal consequences. **As hunger makes one look for food, so boredom makes one seek excitement;** and just as people with no

money for buying food stoop to thieving to avoid starvation, **so those who lack the skills that can relieve boredom in a harmless way, will relieve it with violence or vandalism**

– the most exciting and so most enjoyable activities, and the only ones that require no skill, only strength or a weapon. Think of the mischief small children engage in when bored. Violence and vandalism are the adult equivalent. Education therefore not only adds interest and variety to people's lives, it is also an essential and necessary condition of civilized society and the peaceful coexistence of its members." (*Memoirs*, p. 107) Scitovsky, T. (undated typescript), *Memoris*, Tibor Scitovsky Papers, Rare Book, Manuscript, and Special Collections Library, Duke University)



**Tibor Scitovsky**

Source: A questioning economist: Tibor Scitovskys attempt to bring joy into economics

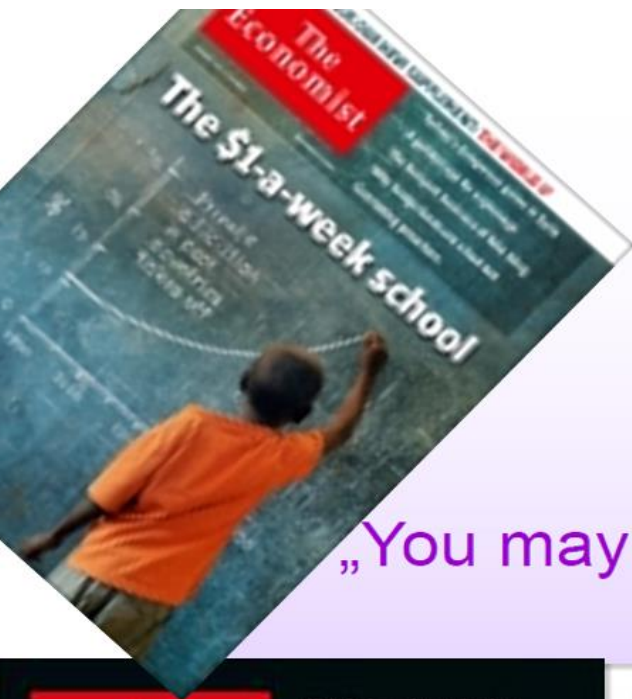
Marina Bianchi  
Journal of Economic Psychology 24 (2003) 391–407

# Do we have possibility to choose?

1. “No wonder that people are becoming passive sponges—**absorbing but never creating**. Did you know that the average viewing time per person is now three hours a day? Soon people won't be living their own lives any more. **It will be a full-time job keeping up with the various family serials on TV!**” — Arthur C. Clarke, *Childhood's End*

2. “In my life I have found **two things of priceless worth - learning and loving**. Nothing else - not fame, not power, not achievement for its own sake - can possible have the same lasting value. For when your life is over, **if you can say 'I have learned' and 'I have loved,' you will also be able to say 'I have been happy.'**”  
— Arthur C. Clarke, [Rama II](#)





„Imagine no possessions  
I wonder if you can”

John Lennon  
September 1971

„You may say I’m a dreamer,  
But I’m not the only one.”



**Thank you for your  
attention!**