

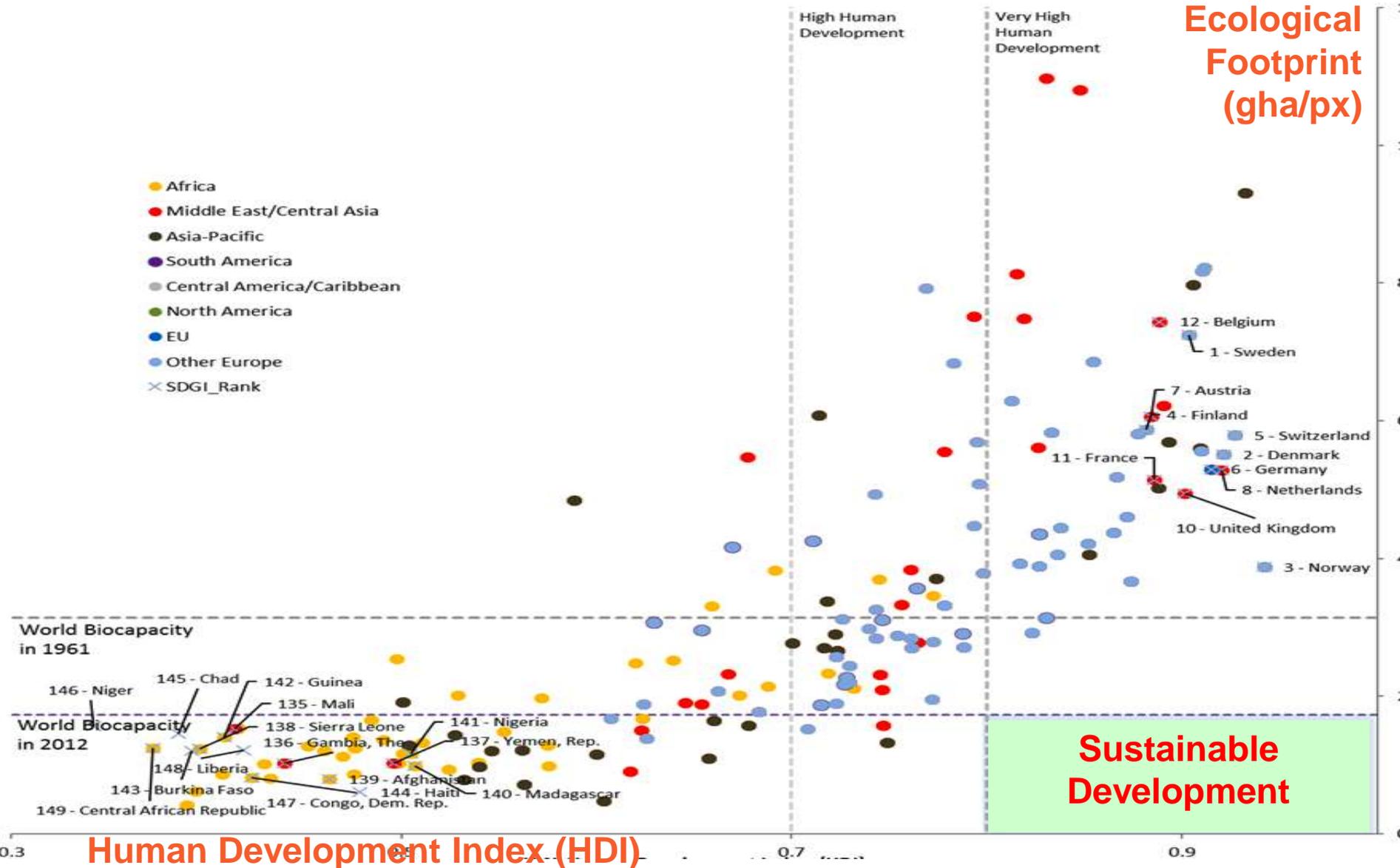


**Asking better questions  
for desirable futures**  
part one

Carlos Alvarez Pereira

Beograd – 11-13 November 2019

# Ecological Footprint (gha/px)

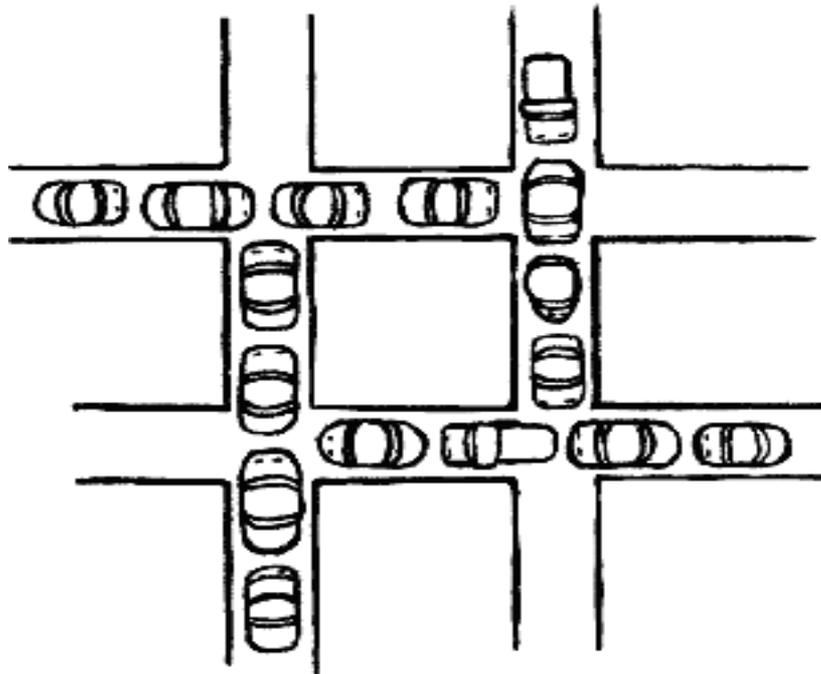


**Sustainable Development**

# Human Development Index (HDI)

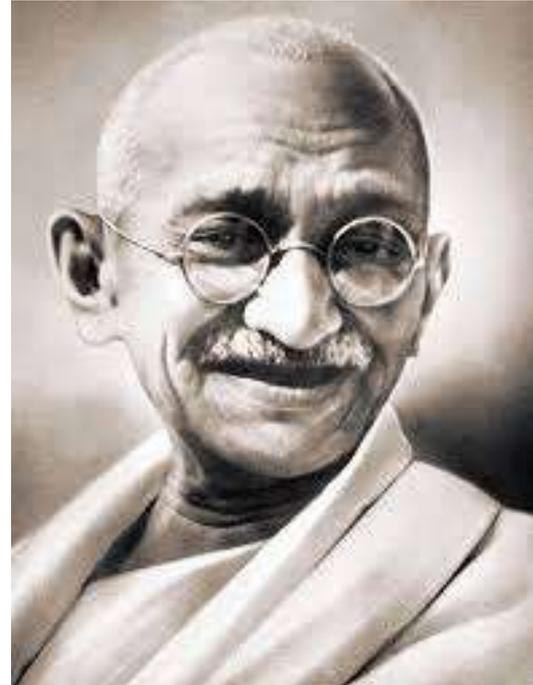
Will the kids be ok?

gridlocked... (at high speed)

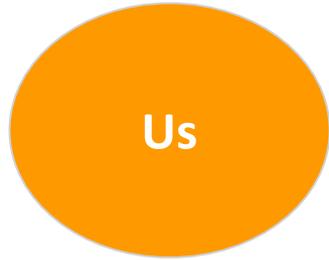


Mahatma Gandhi

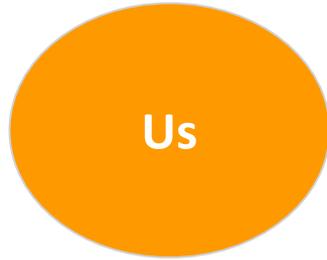
*“Speed is irrelevant if you go in the wrong direction.”*



What do we not see?



Us



**Us**

**Processes**

**Environment**

**Us**

**Time**

**Processes**

**Them**

**Environment**

There are big gaps between reality and  
what we call knowledge

Reality

Perceptions

Frameworks of  
interpretation

Conscious  
understanding

... and the gaps feed our **blind spots**

Reality

Knowledge

Action

Reality

Knowledge

Action

Ontology

Epistemology

Purposes &  
Ethics

What is

What we  
understand

What should be

Reality

Knowledge

Action

Ontology

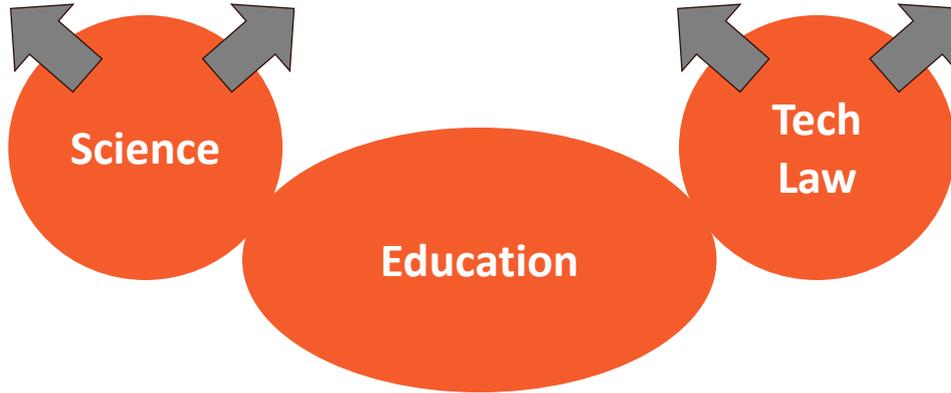
Epistemology

Purposes &  
Ethics

What is

What we  
understand

What should be



Reality

Knowledge

Action

What is

What we  
understand

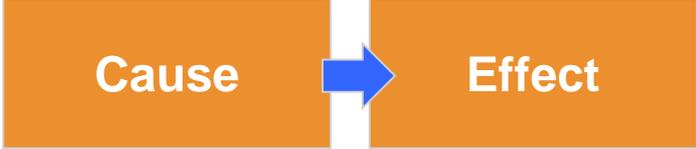
What should be

Massive  
extraction of  
“cold” data

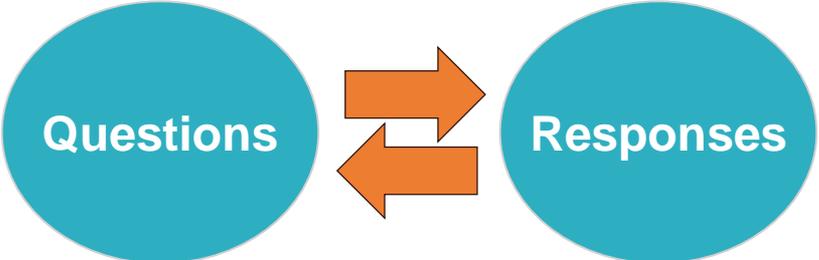
Pattern  
recognition

Predictions  
Prescriptions

AI (better “Automated Knowledge Discovery”) is not disruptive of this scheme, it is a strong booster of it



What the dog will do?



Ilya Prigogine (1917-2003, Nobel Prize in Chemistry)

*“The world is richer than it is possible to express in any single language.”*



## Paradigms of knowledge

**Stop suffering: complexity and uncertainty are the foundations of life**

**Life is not computable nor controllable  
(not even AI can do that!)**

**Knowledge does not bring certainty nor predictability  
(except locally), overall it brings more complexity**

What education for mutual learning?

Many thanks !

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