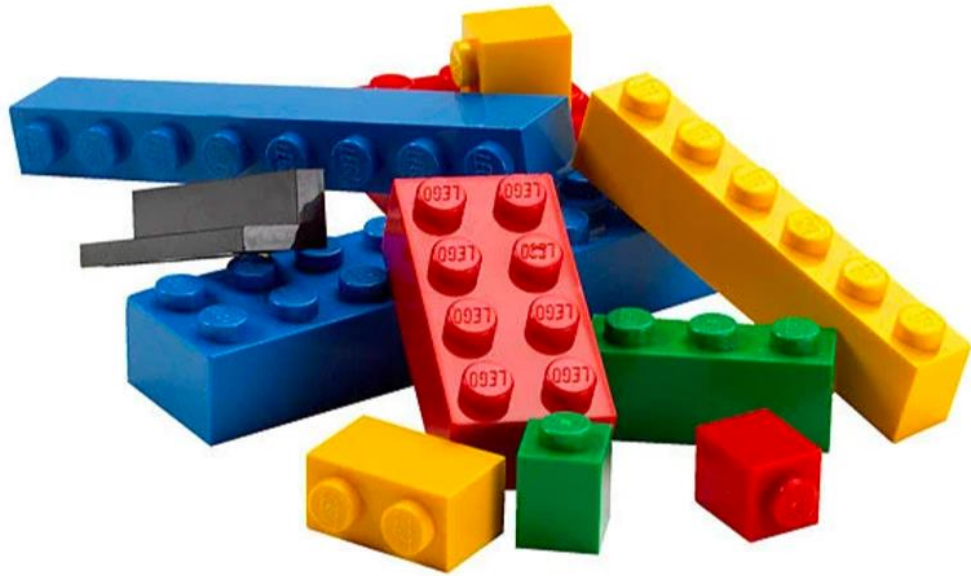


A PhD student playing with LEGO: Microsimulation for dummies



Vincy Huang
University of Liverpool

Materials for the 'Lego city' ...

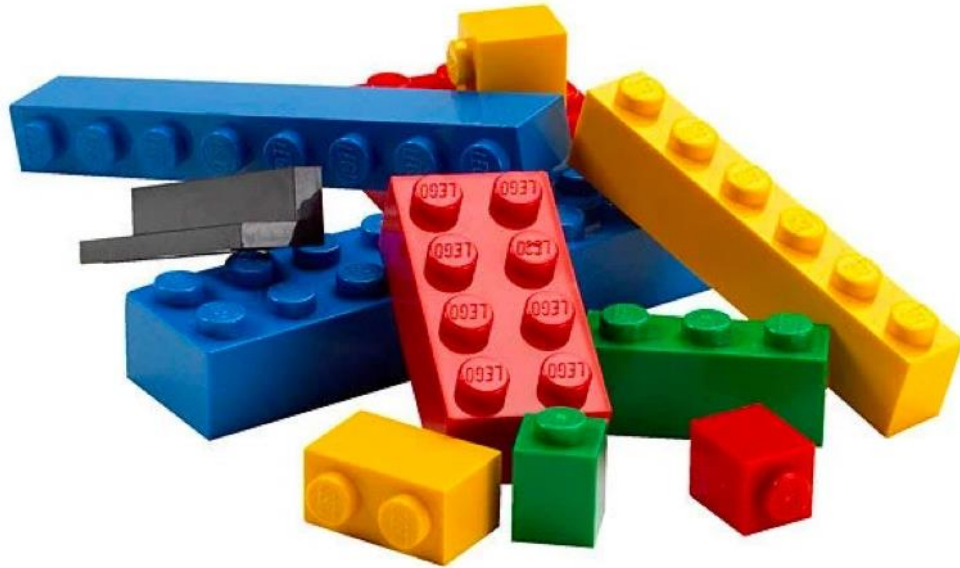


Building Bricks

Mini Figures

Instruction booklets

Materials for the modeller's 'Lego city' ...



Real-world data
(survey data etc.)

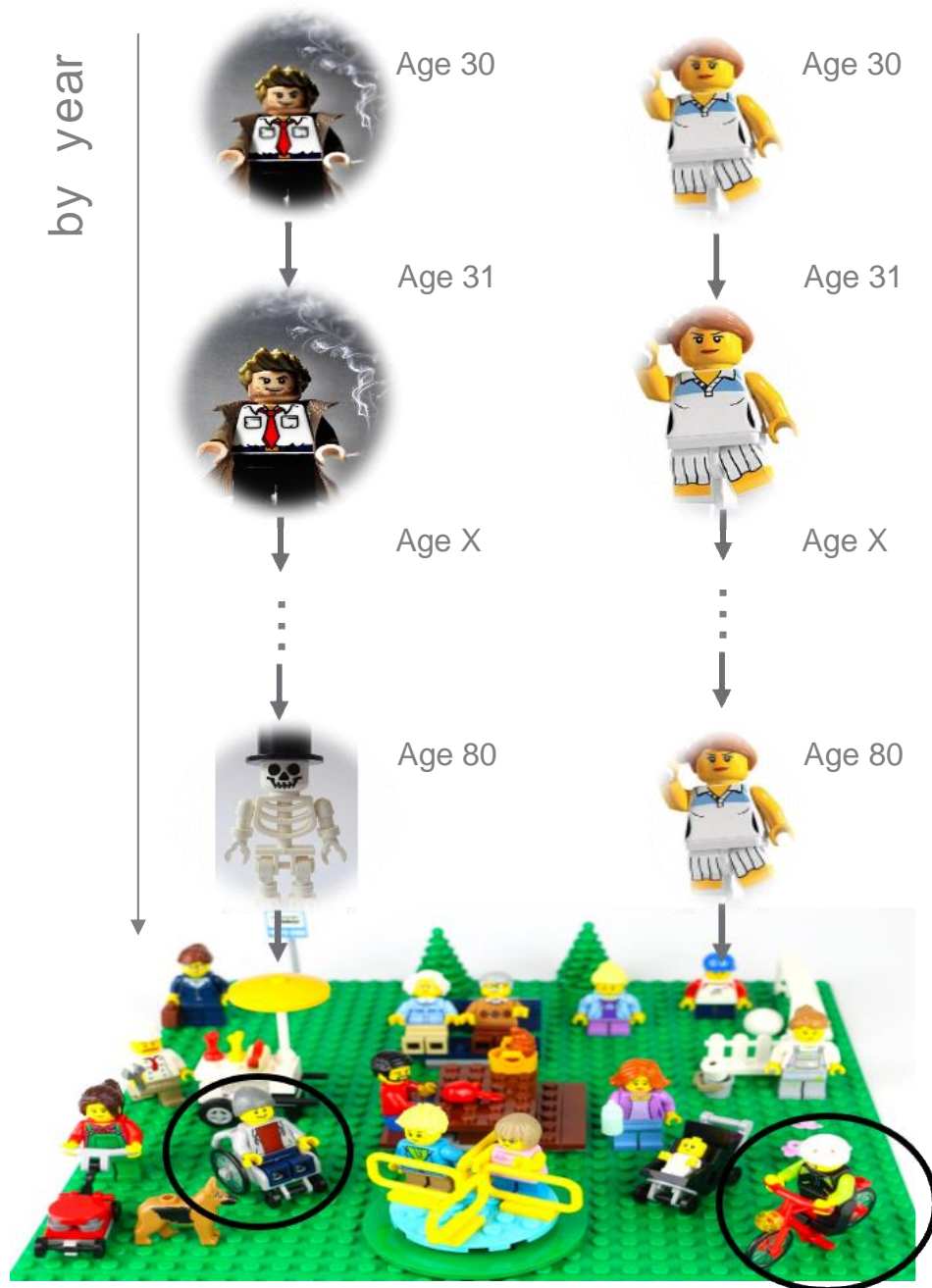


Individual with
attributes (age, sex,
income level etc.)



formulae,
statistical model
results etc.

The microsimulation process



- Initial year: create the targeted population with different Individuals equipped with different characters
- Simulate the individual status in a year-by-year step (with or without intervention)
- End of the time cycle: stop the simulation of individuals
- Aggregate individuals to produce health, economics and equity outcomes

The differences between the Microsimulation & Machine Learning

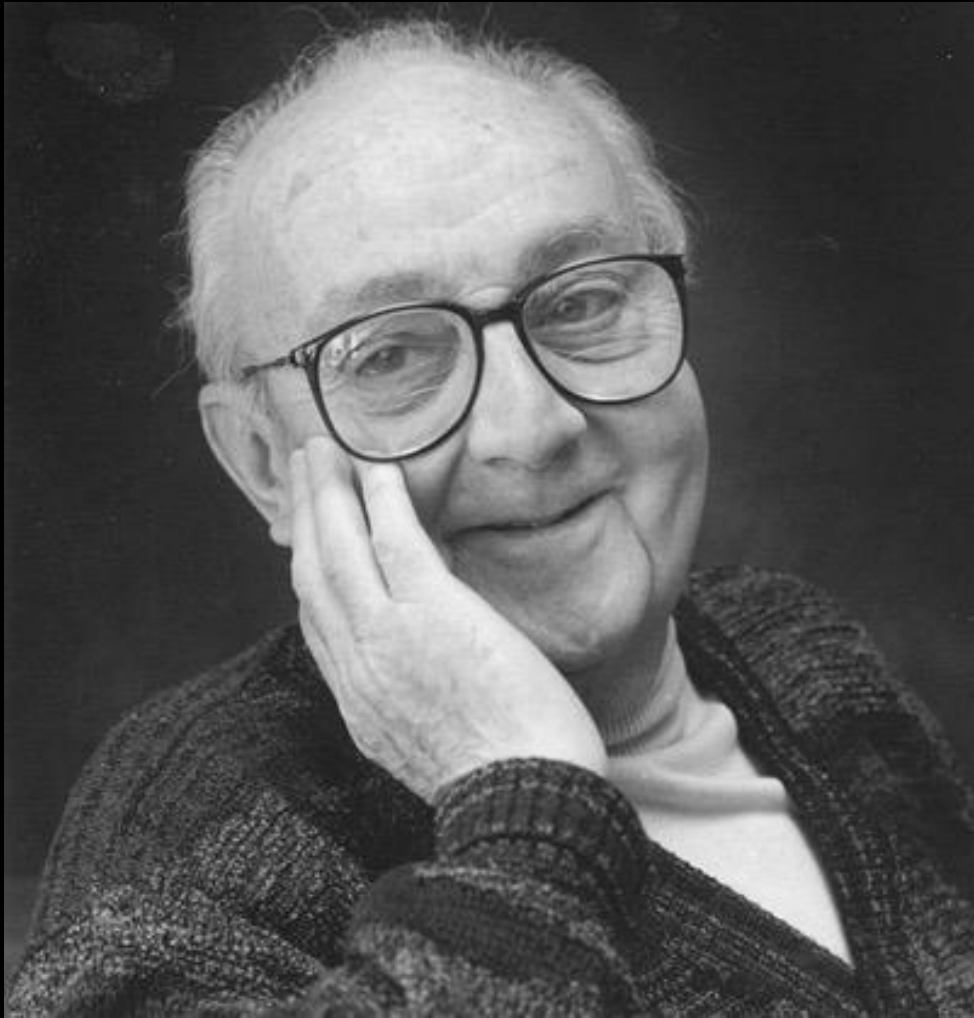


Microsimulation

vs



Machine Learning



All models are wrong,
but some are useful.

George P.E. Box