

# Notes and links

May 2<sup>nd</sup>, 2 h.

a short bio of Pietro Terna

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A look to the program, from the Cmap

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My book. <http://www.palgrave.com/it/book/9781137339805>

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Epstein, J.M. (2014), Agent\_Zero: Toward Neurocognitive Foundations for Generative Social Science:  
see the Cmap/Readings

—

The importance of our Cmap

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Leibniz's dream

**Leibniz (xi. De scientia universalis seu calculo philosophico): ... quando orientur controversiae, non magis disputatione opus erit inter duos philosophos, quam inter duos computistas. Sufficiet enim calamos in manus sumere sedereque ad abbacos et sibi mutuo (...) dicere, calculemus.**

Calculemus = Simulemus

Artifacts in social science

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A short paper on models, Simon and complexity, by Pietro Terna.

From the Cmap look at

Terna p. 4, three types of models

From the Cmap look at

Axtell and Epstein p. 6, the **Axtell and Epstein's definition of ABMs**

—

Agent-based models and **programming**.

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starting NetLogo

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students' cues and projects

## May 8<sup>th</sup>, 3 h.

students' cues and projects

A first look to NetLogo

Using **NetLogo Starter**

The content of the **NetLogo box in the Cmap**

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The Go button 'forever' (using also reset-ticks, tick and ticks)

The box *Programming examples* of the Cmap

look at 1, 2, 3 cases

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complexity in the Cmap

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students' cues and projects

## May 9<sup>th</sup>, 2 h.

students' cues and projects

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turtles going around and changing their color if they found closely another turtle of a different color (both change to a third color)

look at 4, 4plot cases

chameleons <http://terna.to.it/chameleons/chameleons.html>

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breeds.nlogo

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students' cues and projects

## May 15<sup>th</sup>, 3 h.

students' cues and projects

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Exploring the stock market with



CDA\_basic\_model.nlogo

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Trend agents in CDA

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Scratch, StarLogo TNG

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Network analysis

NetLogo and the NW extension.

Preliminary steps with the NW library following:

a) ourFirst\_NW\_Example.nlogo

b) the Usage section in  
<https://github.com/NetLogo/NW-Extension>  
with:

- nw:context (our file contexts.logo)

- Special agentsets vs. normal agentsets (look at ourFirst\_NW\_Example+SIZE.nlogo)

c) from <https://github.com/NetLogo/NW-Extension/tree/5.x/demo> (within branch 5.x)  
look at the Network Extension General Demo  
with the info sheet and to its weblinks

reported also in our repository

d) an emerging network: productionWorld.nlogo

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In NetLogo box

BehaviorSpace  
eXtraWidgets

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Genetic Algorithms and NetLogo

in the specific box we have the link to <http://www.behaviorsearch.org/index.html> where, under Download, we read: “**ALERT:** BehaviorSearch currently only works with Netlogo 5.2.x and earlier. We are working on a new version of BehaviorSearch that will work with Netlogo 5.3.x and above...”

**but**, within the NetLogo 6.0 folder, we have the “Behaviorsearch 6.0.app” for Mac (or proper executables for the other operating systems) and  
a folder of examples  
a folder of documentation (with a tutorial)

let's see the Example\_Flocking\_Convergence.bsearch example (via File / Open Example)  
we are using models/Sample Models/Biology/Flocking.nlogo

what if we want to evolve a specific agent, not a model?

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a digression

SLAPP <https://github.com/terna/SLAPP> (with Python) + Oligopoly model  
<https://github.com/terna/oligopoly>

Python / IPython / Jupyter / JupyterLab  
with <https://tmp59.tmpnb.org>

(and <https://juliabox.com> )

students' cues and projects