

SMASO - Assignment 2

Selected Models from NetLogo Library

Main goal

The main goal of the assignment 2 of SMASO is to explore agent-based models using Netlogo, an user friendly multi-agent programmable modeling environment (<https://ccl.northwestern.edu/netlogo/>)

Description of assingment 2

Each group of 2 students will be assigned two different topics to select one. There will be two presentations given by students. In the first one (May, 17) students will explain the model and describe their main goals for the assignment. In the second presentation (May, 31st), students will present their final work that consists in changing the program and incorporating new ideas.

The changes should be of two types:

- small changes to the parameters of the models and studying the corresponding effects when the model is run;
- some changes to the code (add more properties to agents, etc)

In addition, students are invited to look for relevant papers in the area of the select topic, and incorporate the basic concepts the report taking this into account. The assignment comprises a presentation (in Power Point format or similar) and the possible paper(s). Students need to upload this information in Moodle until May, 31st.

Topics

The following models have been selected from the NetLogo library (see the complet list at: <http://ccl.northwestern.edu/netlogo/models/index.cgi>)

Networks

- Diffusion on a Directed Network
- Giant Component
- Preferential Attachment
- Small Worlds
- Team Assembly
- Virus on a Network

Social Science

- Altruism
- Cooperation
- El Farol
- Ethnocentrism
- Hotelling's Law

Language Change
Minority Game
Oil Cartel HubNet
Paths
Rebellion
Rumor Mill
Scatter
Segregation
Simple Birth Rates

Urban Suite

Urban Suite - Awareness
Urban Suite - Cells
Urban Suite - Economic Disparity
Urban Suite - Path Dependence
Urban Suite - Pollution
Urban Suite - Positive Feedback
Urban Suite - Recycling
Urban Suite - Sprawl Effect
Urban Suite - Structure from Randomness 1
Urban Suite - Structure from Randomness 2
Urban Suite - Tijuana Bordertowns

Deadlines:

First presentation : 17th May

Second presentation : 31st May