Introduction to Agent-Based Modeling for Social Scientists

Day 5

A Practical Guide to Building Models

By: Aaron Bramson

INTRODUCTION TO AGENT-BASED MODELING

A Practical Guide to Building Models in Netlogo

Demonstration of Setting Up a Model

- Create Buttons for setup, step and go
- Create Methods for setup and go
- Create Turtles (cct # []) in setup, Move Forward (fd #) in go
- Too Many Turtles Clear Turtles (ca) in setup
- Let Turtles Wiggle (rt) and Trace their Trajectory (pd)
- Too Few Turtles Add population Slider
- Change Shape, Size, Color, Heading, etc. at Creation
- Add Time, Ticker, and Monitor; Add Breeds and Populations
- Add Eating Behavior with Color and Size Change
- Add Poisonous Butterfly
- What Else Would Be Cool?

EVERYTHING CLEAR?



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Altering the Segregation Model

- Open the Segregation Model from the Model Library.
- Add another kind (color) of agent in the easiest way imaginable.
- What is (potentially) wrong with that technique?
- To fix it, add a monitor to check the number of each color of agent, set number to 2100 and fix the ratios.
- Change the percent-wanted to 50% and find colors that make the display look like camouflage
- The best camo (by the end of class) wins a

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