

Model descriptions.

Hereby are 3 models on diffusion processes as part of the text book Introduction to Agent-Based Modeling by Marco Janssen.

Randomwalk.nlogo

10000 agents walk around randomly and check the color of the turtle on the patch they are at. There are 3600 patches, thus about 3 turtles per patch. The agents have a threshold to define for which share of the turtles of the patch being red the agents adopt the red color too.

The model is a simple model to show diffusion of innovation, the red color, and the impact of a behavioral rule, the threshold of the agent.

Dif-network.nlogo

Given is a small-world network, and 1 or more seeds. Agents will adopt the innovation (red color) if a certain number of link neighbors have this innovation.

Lockin.nlogo

Given is a population of agents who can choose between 2 products. Every ticks an agent makes a decision, and based on the observed frequency of choices made by previous agents, a probabilistic choice is made. This leads that one of the products may get locked in although none of the products was superior. When agents have the option to reconsider, one of the two products gets a 100% market share.