

Introduction to Agent-Based Modeling (Summer 2023)

8.6 Unit 8 Wrapup » Unit 8 Test

Instructions

Please select the best answer.

Question

The Game of Life has the ability to create _____ .

- A. real robots
- B. self-reproducing automata
- C. fully mobile agents with network connections
- D. patterns of behavior that don't exist in ABM

Question

One common feature between ABM and CA is:

- A. the timestep-based scheduler
- B. mobile agents
- C. experimental tools
- D. a fixed set of binary rules

Question

In many ways, the desire to build economic models that can handle modern complexities, at least partially, led to the development of _____, one of the first ABM toolkits.

- A. Repast
- B. MASON
- C. Swarm
- D. NetLogo

Question

Because Genetic Algorithms use a population of solutions, it is possible to _____ good solutions to create better ones.

- A. modify
- B. recombine
- C. mutate
- D. delete

Question

Body syntonic reasoning is employed in agent-based modeling in that:

- A. agents and humans can participate together
- B. agents can reason about their own bodies
- C. agents are similar to bodies
- D. stakeholders identify with agents to reason and understand their behavior

Question

The main difference between NetLogo and Logo is that NetLogo can handle _____.

- A. thousands of agents

- B. one agent
- C. graphical displays
- D. modern computational structures

Question

Object-oriented programming and agent-based model share similarities in that:

- A. OO was created to model complex systems phenomena
- B. agents can be viewed as objects in the OO paradigm
- C. they do not share similarities
- D. agent-based modeling is a programming language

Question

The Actor paradigm and ABM both place an emphasis on:

- A. local interactions
- B. path dependence
- C. participatory simulation
- D. experimental design

Question

Parallel computing requires the creation of special languages because:

- A. serial machines run slower
- B. different processors behave differently
- C. standard computing architectures assume that every element can access the full data of the program at all times
- D. communication between processes takes a long time

Question

_____ is the field of studying computational models of natural life.

- A. machine learning
- B. evolutionary computation
- C. system dynamics modeling
- D. artificial life