CS 398 Agent-Based Systems   Spring 2025
## (TR 9:30 am - 10:45 am, Prerequisite: CS 126)

Agent-based models employ methods to explore complex systems by utilizing autonomous actors, interacting with each other in a common environment. It is the intent of these models to solve real-world problems.

Single-agent and multi-agent systems have found their way to real-world applications in a variety of domains such as e-commerce, logistics, supply chain management, telecommunication, health care, pandemics, weather, battlefield planning, and manufacturing. Below are samples of some specific models.
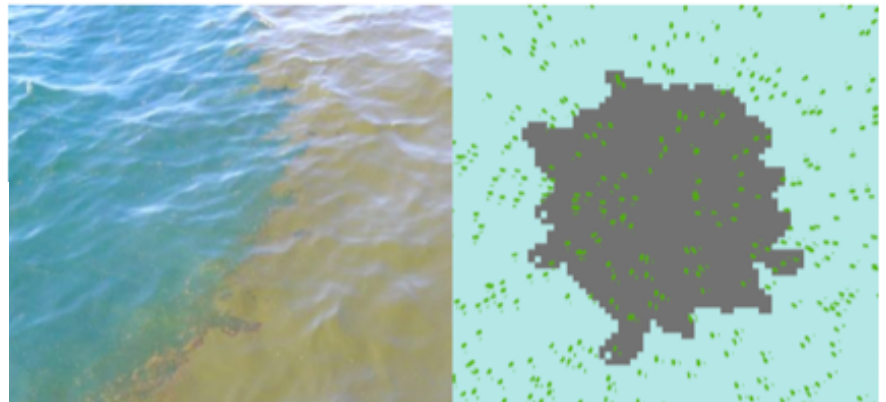
This model is an attempt to mimic the flocking of birds. The flocks that appear in this model are not created or led in any way by special leader birds. Rather, each bird is following exactly the same set of rules, from which flocks emerge.
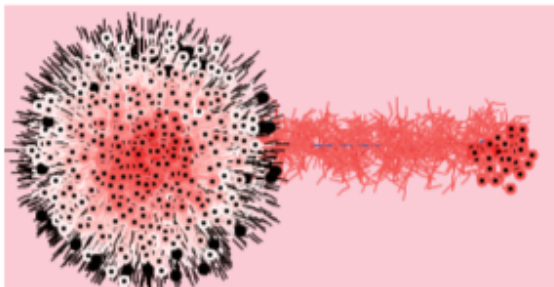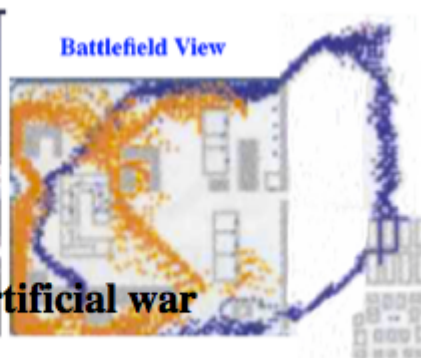
Illustrating the growth of a tumor and how it resists chemical treatment.

Investigating the role of "oil-eating" bacteria in the dissipation of the Deepwater Horizon oil spill.

Battlefield View

Effective simulation of artificial war

Effective simulation of artificial war

Questions - contact Dr. Ronald Pryor, SLC 431, ronald.pryor@wilkes.edu/