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EECS 472

Project Update 5/20/13

Since I was having trouble understanding what was going on in my more literal model of the Kellogg paper, I created a much simpler model to work up from.

**Agent Behavior:**

Everyone starts with one of two opinions “defender” or “reformer.”

At each tick, turtles look at the turtles within the radius of their turtle-vision (including themselves):

* if the majority were defenders on the last tick, I become a defender
* if the majority were reformer on the last tick, I becomes a reformer.

Turtles can move in 3 ways

* by walking randomly around the world
* by moving to a random different location in the world at a certain probability
* by starting off in groups and having one turtle from each group switch groups at each tick

**System Behavior:**

In the simpler forms of interaction, (“all random” and “a few at a time”) all of the turtles eventually come to hold the same opinion. The vision and moving-probability sliders affect how quickly this happens, but not the outcome.

Under the “groups” setting, if the vision slider is set very low (e.g. 1.5) this eventually happens as well. (Although first, the groups all develop similar patterns of defenders and reformers, which is interesting). However, if the vision slider is set higher (e.g. 4) each group will develop its own stable opinion, and the system as whole can support some groups with each opinion.

**Rationale:**

I wanted to start very, very simple and work up to some of the mechanisms that I think may be at play in Kellogg’s case.

**Model Output:**

I don’t think this model is yet able to capture the dynamics I’m looking for. It’s getting there, though.

**Question:**

No questions at the moment . . .

**Next Steps:**

I want to continue to increase the complexity of this model. First I’ll add controls for how many turtles move from each group at a tick. Then different rules for learning (beyond just go with the majority).