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EECS 372 – Uri Wilensky

Progress Report 3

Feel like I was able to get a significant chunk done. Currently, people who cannot find an immediate target to go to simply turn in-place, which some people to not ever make it to an exit. This is a placeholder for the herding behavior.

**Updates**

* Improved collision by limiting IMMEDIATE-TARGET to patches without other turtles. No longer does that ‘move forward then back-up’ nonsense.
* I removed flocking behavior for now because I think people herding might be less complex than the example in Flocking. Also because I thought it would be easier to add in next after implementing pathfinding.
* Added room type with an obstacle for testing pathfinding.
* Implemented pathfinding by inserting “checkpoints” that are targeted if no exists are visible. New rooms designed will also have to have these checkpoints for pathfinding to work. This is based on the waypoint concept from game development.
* Implemented visibility. Reports whether a patch is visible to a person based on if there is a wall blocking. This is used to filter down visible exits and checkpoints.

**TODO**

* Other people should probably be treated as obstacles, too, and block visibility. This will then trigger the herding behavior.
* Developing and implementing a good herding behavior.
* Designing some other room types.
* Keeping track of and plotting some measures, like evacuation time.

**Questions**

* What should people do if they can’t see any checkpoint OR exit OR people? I think I asked this last time, and we can talk about it on Wednesday.
* Right now, if someone is on the left side of the room, but facing the right side, they will go to the exit on the right because that’s the one they see. However especially if I’m close to the left door, I’ll probably look around first and notice the left door before going all the way to the exit on the right. Is this necessary? Maybe the herding behavior will cover it?
* In the last progress report, you mentioned implementing simple physics, like having people slightly repel each other. Is this still necessary?