

Autonomous Agents

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Project 2

Introduction

As I began thinking about this project, I decided I wanted to create a pond ecosystem. I wanted this pond to have algae, smaller fish, and bigger fish that would work together in their artificial home. As I worked on it I was trying to build it from the template I had created from following along with the creation of our class ecosystem. I was having trouble customizing it to be my own unique system.

I then decided to switch gears and focus on creating an ecosystem with geometric shapes in processing. I created a beautiful piece of artwork that I was proud of but in this sketch did not achieve the autonomous goals that this project required.

The Process

Interactive design and coding are not things that come to me as easily as other topics in the media arts studies do. These design classes pose an intellectual challenge to me that forces me to push my mind past its limits of comfort in this art field. While these challenges frustrate me, I am learning more from this class than my other 'easier' classes.

To begin my design process for this project, I focused on finding an ecosystem full of autonomous agents that I could easily imagine in my head before trying to put it into a program. The first idea to enter my mind was a pond.

I began to work on my pond with the template of our class ecosystem on my computer. It was easier for me to figure out how to write this ecosystem when I had an example to build upon that I knew worked. The more time I spent on this pond, the less confidence I had that I was going to get anywhere with converting it into an ecosystem that was all my own.

I had algae, small fish, and big fish as my agents in this system. The algae do not do much other than float around and get eaten by the small fish, the small fish searches for the algae while remaining on the lookout for the bigger fish, and the big fish searches for the small fish to eat. I was disappointed that what

I had still looked almost identical to the project created in class.

I then changed my mind and decided to focus on creating some kind of ecosystem centered on geometric shapes. What I ended up creating, however, was not truly an autonomous system. I wanted this system to work together and separately at the same time, but have not been able to figure out where exactly I am trying to go with this concept. I had fun creating this piece and worked with a shape that I didn't know I could make in processing.

What I learned

Not everything will come to me easily, there will always be some tasks and projects that I need to devote more time and effort on in order to reach my end goals. This is something that I feel should be obvious but I always forget the challenges that I will face in this field of study when my main focus is on the subjects I excel in. I am very grateful that I had to take interactive design classes that have pushed my creative limits to places that I knew were possible but did not think I would ever venture to.

Creating an ecosystem full of autonomous agents is not a simple task. Honestly, for me, the most frustrating thing about this assignment was how impossible creating an autonomous agent seemed. This assignment forced me to think in very difficult ways in order to reach a conclusion that did not fully answer the questions I had for myself about this project.

Conclusion

Coding autonomy into computer-generated agents is not truly possible. You can give these agents the appearance of having agency but in the end they are not truly autonomous because they cannot make decisions on their own, only decisions based on the code that they are programmed with. This concept is what made this project so difficult for me. I learned a lot from needing to focus on this idea and the information I have studied was the best part of this project.