

Fashionista Phil High Level Design (HLD) Document

1. Introduction

The Problem

Fashionista Phil is devoted to the world of non-hipster fashion and wants to understand color trends within the fashion world. He has hired you and your programmer to build a model that will simulate (not predict) color trends for a ten-year period or longer. He wants to see a nice graph that representing each color's rise or fall. Phil also wants to be able to stop the model at anytime and be able to see a color trending.

Your Assignment

Create a world of 'x' number of people who at the start of the model will be assigned a random color and a random percentage to resist change. Each person will move around the world randomly. When two people meet they will assess each other.

When two people meet one of three things will happen.

1. Person 1 adopts Person 2's color.
2. Person 2 adopts Person 1's color.
3. Nothing

Keep in mind as more and more people wear color 'y', the color will start trending (becoming popular). As the popularity of color 'y' trends upward, the more influence the color has when two people meet. At some point the trend will become too popular and people will start look for a new color (except the hipsters).

2. Subject Matter Experts Agreement List

Name	Title/Role	Mandatory Reviewer (Y/N)	Approved
	Developer	Y	
<i>Phil List</i>	Supervisor	Y	
<i>Eric Horton</i>	Intern-apprentice wrangler	Y	
	Mentor	Y	

3. Requirements

The Challenge

Create a world of 'x' number of people who at the start of the model will be assigned a random color out of four colors and a random percentage to resist change. Each person will move around the world randomly each time step. When two people meet they will assess each other.

When two people meet one of three things will happen at random.

1. Person 1 adopts Person 2's color.
2. Person 2 adopts Person 1's color.
3. Nothing.

Keep in mind as more and more people wear color 'y', the color will start trending (becoming popular). As the popularity of color 'y' trends upward, the more influence the color has when two people meet.

At some point the trend will become too popular (60%) and people will start look for a new color (except the hipsters).

You will also need a graph that shows the number of people that have each color. This graph will also be used to show trends in color.

You Need to Complete

1. An AgentSheets Model
- or
2. A JavaScript Model

4. Timeline

This is due within five days of receipt of the task (that would be Friday, June 20 for those receiving this Monday, June 16). It is better to complete this sooner, so that you can begin implementing an HLD that one of your classmates has written.

5. Desired Behavior / Components

The World

The World is a 40 x 40 square that contains people.

The People

Each person is randomly assigned a color at the beginning of the simulation. They are each assigned a probability to resist change. Each person moves around the world randomly every time step. When they interact with each other, they will either transfer color preference or do nothing.

Depictions

Each person will be depicted based on his or her color preference.

Behavior

When two people are next to each other, they will interact. Based on their probability to resist change, one of the following things will happen:

1. Person 1 adopts Person 2's color.
2. Person 2 adopts Person 1's color.
3. Nothing

Movement

Each person will move randomly through the world each time step. They cannot wrap around the world and they cannot move on top of other people.

6. Conclusion

The goal of this activity is to demonstrate your understanding of agent modeling. You will create this model in AgentSheets or JavaScript. To conclude your model, answer the following questions:

- What was the most challenging part of the model to implement? Explain.
- Did your model accurately represent the situation provided? If so, how precise was it?
- Was your choice of modeling style (AgentSheets or JavaScript) a good choice? Why did you choose this style? Explain.
- Could you improve this model or HLD in anyway? If so, how?