

SanJuan-3

San Juan College High School

Behavioral and social sciences

StarLogo TNG

10th

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- This model was created in attempt to model bullying, and it's biasing towards certain categories of people. When we began the modeling process we found that there was an extremely large number of factors that we would not be able to model easily, or in the time we had. In this we narrowed down our variables to male, female, and whether or not the "person" was considered LGBT, but we made the breed system more complex, enabling easy classification of many other states. The used "breeds" of entities were People, Bullies, Helpers, Victims, and victims who had received help, labeled Post-victim. 500 entities were created in the 3D map, they all had a random movement code, pictured in Source Code section of this document, and reactions were based on collision, and probability after collision, also shown in Source Code.
- Bullying is a really big problem all over the world, when people are bullied they can become depressed and kill themselves or even become bullies themselves. Thousands of student wake up every day scared to go to school for fear of being bullied, it affects everyone. Not just the ones on the receiving end. Teachers, parents, and other adults don't usually see what's happening until it is too late, and even if counselors try to help

when they see what is going on it doesn't always help the student in any way. It's a load of BULL.

- The problem was not solved, our problem is extremely hard to solve with just the one simulation. Our main goal was to raise awareness on how people are affected when they are bullied, this simulation shows how each person reacts to being bullied and what happens after they are bullied.
- We verified by double and triple checking all variable values, as well as visually comparing the running program to other programs that model the same type of thing.
- We witnessed and accurately modeled how the entities were affected and modified.
- We concluded that our predictions of how it would actually appear, when simulated, were very undershot, results were much more dramatic.
- Products
 - a. Software: StarLogo TNG (logo LISP language, visual agent based)
 - b. <http://antibullyinginstitute.org/>,
<http://kidshealth.org/en/teens/bullies.html?WT.ac=ctg>,
http://www.pacer.org/landing/bullying-in-elementary-schools/?gclid=Cj0KEQIAIsrFBRCAXcCB54XEILEBEiQA_ei0DL0HR83oCBA ML207iUsWWXm5eR2eJCGCqRa0HrjxPI0aAtgz8P8HAQ,

<https://www.stopbullying.gov/media/facts/index.html>,

<http://americanspcc.org/bullying/statistics-and->

information/?gclid=Cj0KEQiAIsrFBRCAXcCB54XEILEBEiQA_ei0DFmLlulrqs

<BmXOQFbaYG19hd-flaPHp8HP6qTqHI7isaAucw8P8HAQ>,

<//www.emaze.com/@AOFWOWOL/Bullying-PBL>, <http://www.a4club.org/get->

<the-facts/bullying-statistics>

- Our greatest achievement would be being able to code our program with the most accurate information possible as well as be able to change the variables whenever new information becomes available

- Source Code :



