Space Pollution Needs Solution

Leave a reply

Owen, Matt, and I chose to focus on space junk for our Network as Material project because it does not receive the amount of discourse it deserves. There are 16,000 pieces large enough to track and over 500,000 that are too small to track. These pieces of debris are orbiting the earth at extremely fast speeds. A statement from DARPA said that “A collision between one of these small pieces of debris and a satellite could release more than 20,000 times the energy of a head-on automobile collision at 65 mph.” Kessler, the scientist whom the Kessler syndrome was named after (which is the theory that collisions between objects in space could cause a cascade, with each collision generating more space debris and increasing the chances of other collisions), said that in 2009, a satellite collision and a Chinese anti-satellite

missile test doubled the amount of space debris. The amount of debris in orbit could render space exploration or satellites unfeasible in the near future. The video ~~below~~ is a visualization of space junk orbiting planet Earth:

In order to increase visibility of our network, we decided to make a narrative experience in the form of a game. The work focuses attention on environmental issues, both on Earth and in space. It's not about offering a solution, but rather pointing out an issue that is rarely mentioned yet important to us and future generations. The game conveys the negative outcomes and consequences of space debris through messages and scenarios that play out on screen.

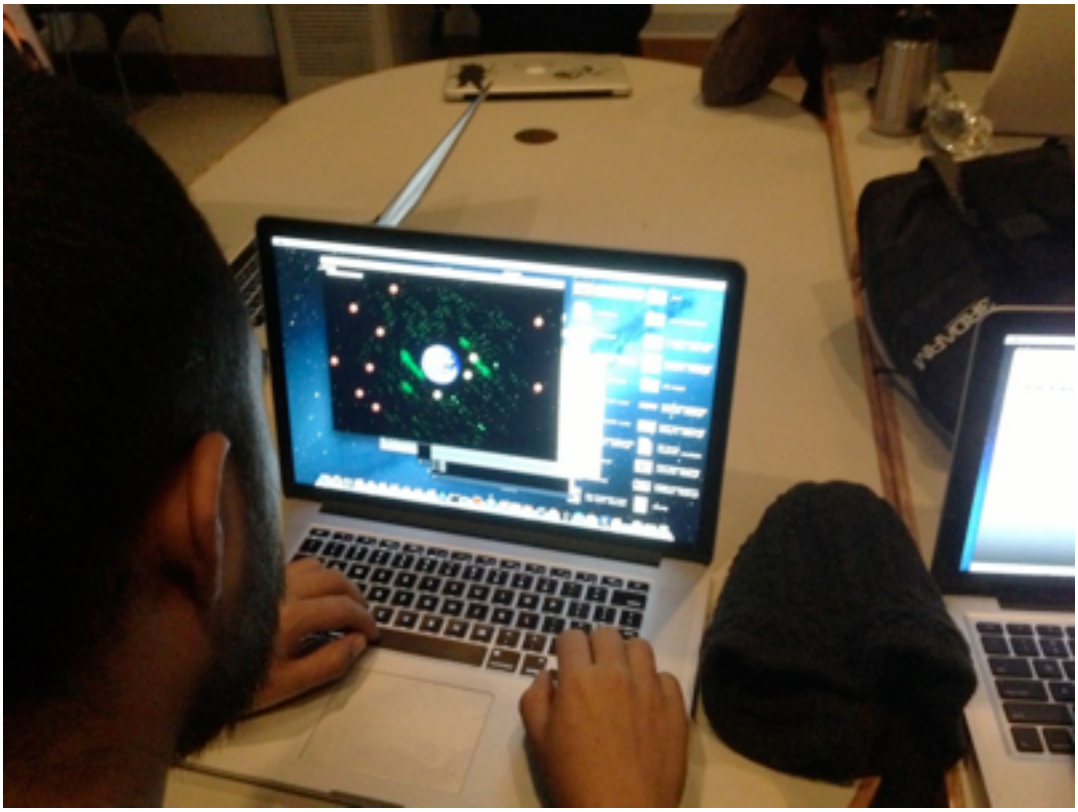
The game starts off as a vertically-scrolling shooter-style game (minus the shooting), where the player pilots a shuttle into orbit. Everything seems to be fine at first, but as the player gets into orbit, he or she will notice all of the space junk and have a very difficult time. When a spaceship is destroyed by pits of space debris, it shatters into more space debris, thus emphasizing the dangers of space debris and how it is perpetuated. When space debris collides with space debris, it breaks up into smaller pieces.

There are spots that you can move your ship to that will tell you a negative consequence of space junk, but based on our play-testing, these need to be worked into the narrative and the mechanic because there isn't really any motivation to get to them and read them. Our testers also felt that it was too easy to ignore the messages. Furthermore, some people wanted the mission to be about cleaning up the space junk, and the space shuttle

is difficult to see against the background of Earth. People also didn't seem to notice that as the space junk collided with itself, it broke into smaller pieces.

We wanted to get it on OpenProcessing so it could be played online, but OpenProcessing doesn't support libraries, ~~so here is the code (requires Processing to run): spaceJunk~~

Matt coded the pre-orbit game play and composed, performed and recorded the music. Michael and Owen collaborated on coding the orbital game play. Owen made the art and title/transition screens. The class playtested and provided feedback. Teamwork!



And that’s how Matt saved New New York and is the greatest.

This entry was posted in Posted Assignments and tagged Network as Material on February 20, 2013 by Michael.