

JUNKSPACE

**Projected animation, custom software, iOS App
Lynn Cazabon & Neal McDonald, 2012**

Junkspace, is a time and location sensitive animation and corresponding mobile application that superimposes two forms of waste, one earth-bound (electronic waste) and the other celestial (orbital debris), and three different forms of space: outer space, physical space and virtual space. Orbital debris is any man-made object in orbit around the Earth that no longer serves a useful purpose, left behind by decades of satellites and space missions. E-waste are the remnants of the many devices that fill our lives, transformed from objects of desire to trash through a self-perpetuating cycle of obsolescence.

Junkspace suspends the viewer between the physical and virtual worlds in order to draw attention to these two forms of waste and to raise awareness about the scale of the problems they pose. Using orbital debris tracking data published by NORAD and the GPS coordinates of the exhibition venue, the movement of animated e-waste on screen aligns with the orbital path of actual pieces of debris in orbit above the user's location. As a piece of e-waste moves across the center of the screen, the satellite/rocket name appears at the bottom. Using the free *Junkspace* iOS App, viewers can obtain more information on the originating satellite or rocket, including launch date, country of origin, and purpose, by tapping on its name.

Currently, there are approximately 20,000 pieces of debris 10cm and larger orbiting the earth being tracked by NORAD, although there are millions more smaller pieces of debris also in orbit. The debris is tracked because it poses a potential threat to ongoing space missions. Many of these objects have been in orbit since the start of international space programs in the late 1950's, and barring dramatic incident, will remain in orbit for thousands of years to come. More recent debris largely comes from communications satellites launched by many different nations, which give functionality to the terrestrial electronic devices we have grown accustomed to using on a daily basis, such as navigation devices, television, radio, and mobile phones.

As the life span of electronic devices becomes increasingly shortened due to functionality loss or design obsolescence, their disposal becomes more of a problem. Many of us would like to think that by depositing our gadgets into a bin labeled 'recycling', we are doing something good, however, their true destination is not always clear. Electronic waste (E-waste) is often sold and exported from rich developed countries to developing countries for the stated purpose of "reuse." However, many parts of these devices are not reusable and present significant health and pollution problems. Some electronic scrap components, such as CRTs, contain heavy metals like lead, cadmium, beryllium, mercury, and contaminants such as brominated flame-retardants. The United States is currently the world leader in producing electronic waste, tossing away about 3 million tons each year. China already produces about 2.3 million tons domestically, and e-waste in China and India is predicted to rise by 500 percent over the next decade.

We were compelled to create *Junkspace* not because we feel we are immune of the problems it raises but instead because we recognize we too are caught in the web of buying, using and discarding electronic gadgets just like everyone else. *Junkspace* seeks to open a dialogue about why we covet, use, and eventually discard particular technologies over time.

BIOGRAPHY

Lynn Cazabon and Neal McDonald are artists based in Baltimore, Maryland who collaboratively create works combining data mining, animation and photography that

seek to raise awareness about pressing environmental issues. They both are on the faculty of University of Maryland, Baltimore County. They each also work independently. Cazabon's work focuses on what gets left behind in the wake of human progress. Her work often takes the form of photographic images presented in the context of websites, videos, and audio and has been exhibited widely both nationally and internationally. McDonald considers his work in game development to be equal parts high art, entrepreneurship, and social commentary, exploring the ways that art exists (and is forced to exist) in America. He has developed multiple products for several different platforms including eight iOS apps.

LINKS TO PROJECTS

Project website: <http://junkspace.org>

Lynn Cazabon's website: <http://lynncazabon.com>

Neal McDonald's website: <http://workly.com>

other websites, related to project:

E-Stewards: <http://e-stewards.com>

Real Time Satellite Tracking: <http://n2yo.com/database>

NASA Orbital Debris Program: <http://orbitaldebris.jsc.nasa.gov/index.html>