Spore 1.1

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1 Introduction

Spore 1.1 is a physical computing project that creates an ecosystem for a rubber tree plant where conditions for life or death are controlled by monitored fluctuations in the price of Home Depot's stock. The primary goal of this work was to visually articulate the impact and control that economies of scale have over discrete living organisms. Methods in physical computing were explored as a way of functionally and conceptually representing the cybernetic processes lying at the core of an ecology that is tethered to global economics.

2 Methods

The Home Depot is responsible for the health of Spore 1.1 in two ways: first, through an unconditional guarantee to replace any plant they sell for up to one year; secondly through an implied cybernetic contract. This second responsibility is the active content for the work, where Home Depot's economic health is transitioned through a series of physical computing techniques as a mechanism for controlling the watering of the plant. An onboard computer accesses Home Depot's stock quotes once per week, keeping these values stored in a database. From this stream of fluctuating data, custom software actuates water pumps via microcontrollers. As the company does well, so does the plant - if the company suffers losses, Spore 1.1 does not get watered. If the plant should parish, it is returned to the Home Depot where the 1-year guarantee is exercised and the plant is replaced with another.

3 Concepts

The ill effects from unchecked corporate growth are obscured by various methods of economies of scale. Marketing, expansive real and virtual networks, manufacturer volume discounts, barrier to entry, brand value, longer hours of operation, franchise frequency; these are only some of the tools large corporations employ to systematically dismantle any real sense of a market driven economy. These strategies lower the quality of life both in the countries of production and in places where the products are sold.

The plant used in Spore 1.1 is a rubber tree plant, indigenous to Southeast Asia. Its relevance to the project becomes more pronounced when one considers its improbable situation of sitting on a shelf at a Home Depot in Upstate New York. The plant is a symbol of life and ecology, trapped inside a synthetic ecosystem, awaiting the arcane results of the NYSE. Hence the plant is not only a meter for stock fluctuations; it is symbolic of how there now exists a global ecology directly impacted by powerful forces of cybernetics that remain largely invisible.

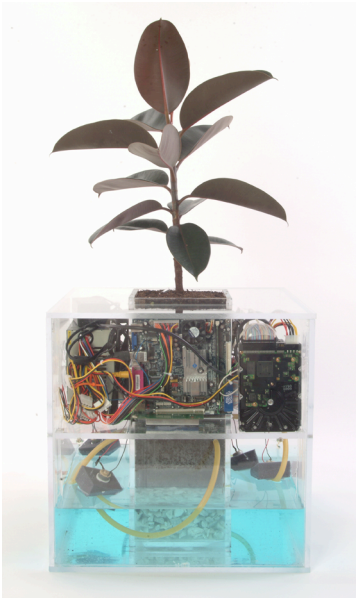

Figure 1: Spore 1.1 - photo by Luke Hoverman

4 Future Direction

Spore 1.1 has already died five times and has been replaced each time through Home Depot's 1-year guarantee. Unexpectedly, each death was a result of too much water: an interesting consequence that remarks upon the effects of runaway economic growth. While shareholders and executives are enjoying the capital rewards of this growth, other detrimental effects go unnoticed.

New Spore projects are in progress, utilizing physical computing technology and data mined from economies of scale. Spore 2.0 will be strategically installed to capture the recent propagation of wireless internet signals radiating from homes and businesses across the country. Internal components will compare signal-to-strength ratios, deploying nutrient enriched water to encourage fungus growth in nonnative urban settings.

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