The life in the machine

unpatriotic

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eing a programmer, one of my dreams has always been to create an original video game, something that nobody in the industry has done before.

After seeing Spore, I became intrigued. Here was an attempt at putting people in control over a universe. After looking at what made videogames popular, I realized the main aspect was control.

People in their daily lives have no control over their environment. They are told what to do, where to go, and how to live. Their jobs consist of standing or sitting somewhere until it's 5 PM and they're allowed to head back home. It's no mystery they're unhappy.

For many people videogames are an escape to a world where they are in control, or live exciting fake lives filled with adventure. The aspect of control is found in strategy games, the

adventure in role playing games generally.

I looked at games like the Sims, and noticed what made them so popular is not just the illusion of control, but the degree of control. You have complete control over people's lives.

Before the Sims, there was Sim Earth. A game in which you do not control individual people, but an entire Earth! I came to the conclusion that I had to develop a game similar to Spore, in which the player subtly "guides" evolution. What caused Spore to be such a failure is the lack of realistic control people had. It hardly resembled evolution.

To do this, I began by generating a physics system. I know little of physics but decided to study it, and try to create a simplified version in which certain particles can interact, in specific manners. When it comes down to it, physics is simply complex mathematics.

I simulated energy, and matter, and created a simple system, with a sun emitting energy, circled by a planet catching said energy.

I decided to create simple basic cells from scratch, that were "hardcoded" so to speak in the system I was designing. They lived of off the energy emitted by my sun, and had a "genetic" code that coded for the substances produced by the cells. I guess you could call them my eukaryotes.

My world within a few minutes would always fill with these cells, after which they would mutate, and the most efficient cell

in converting energy from the sun into useful substances for division would survive. It was very boring, but it worked I guess.

I decided to expand the physics system, and force the cells to create waste products, that were toxic and would kill them. I noticed that some cells responded to this by producing less waste. Others responded by producing something to emit the waste. Yet others developed chemicals to clean up the waste products.

However, I noticed something fascinating. Running the simulation for a few centuries (a few minutes in real life), created cells that made massive amounts of specific waste products on purpose. I noticed that other cells died as a result of this, to which the other cells responded by usurping the building blocks they had created from energy. The first predators were born.

With the first predators, diversity in this little world rapidly increased. Some grew a response to flee when they encountered these toxins. Others grew resistance to them. The ones that grew resistance would eventually grow to utilize the toxins products.

Eventually I noticed something interesting. The cells that escaped from the toxin grouped up with the cells that utilized the toxins. They stayed close together, and helped each other. Eventually these type of cells would attach to one another. They formed a weird symbiosis, where the cell that would normally flee, would now move towards places where the toxins are, and the other cell would consume the toxins and provide the "mover" with some of the energy.

Without going into too much detail, I became very excited, and decided to let this simulation run during the morning (I had stayed up until 5 AM), while I went to bed. When I woke up at around 11, I noticed the world I had created had changed, and was barely recognizable.

Massive plant-like structures grew in this world, consumed by other organism that ate these plants. However, looking at the log, I noticed the world hadn't changed much in the past two hours or so. I had reached another "stasis point", where the simplicity of my simulation prevented more complex life from evolving.

I expanded the system, by breaking up "energy" into different types, with different wavelengths that were absorbed to different degrees by different molecules. I implemented vibrations in the air, created an improved simulation of weight, and made some more minor tweaks.

This caused the simulation to run slower of course, but it was worth the sacrifice. I stayed around the whole day watching the simulation in excitement, and playing with it, as it was incredibly addicting. Complex organisms evolved, that cooperated. Plants that depended on each other, or attracted predators that ate the horrible looking creatures that ate from them.

I had fun, and noticed that some creatures evolved "warning calls". This means that if they noticed a predator, they would issue a sound, and all others of their kind would flee into holes they had dug in the earth. Others evolved "mating calls".

I decided to have some fun. I made a dump tool, allowing me to dump specific organisms on the Earth, and wrote my name with it. I created 10 "meteorites", and dumped them on a piece of land to create an island, because I wanted to see whether the animals stuck on both sides would evolve in different directions. I made a smiley-island with volcanic eruptions.

By that time I realized I had stayed up until 5 AM again, as I heard the birds outside. I felt tired again, and woke up at 1 PM or so. When I looked at my simulation again, I felt a sense of shock.

Different groups of animals of one species had made statues with stones. Some in the form of a smiley. Some in the form of my name. I didn't know why they were doing this, or how. What I did notice is that they would attack each other from time to time.

I didn't know what to do with it, but I concluded that these organisms must have somehow noticed that the smiley and the name I had written were "special". The fighting disturbed me, and so I decided to create a massive mountain ridge through volcanic eruptions to separate the two groups.

By this time, changes were happening fast, compared to earlier. While I had to spend a night sleeping to see tribes evolve in my simulation, while I was getting something to eat or take I bathroom break, I would notice the tribesmen wearing different styles of clothing, or having changed their type of dwelling.

Their numbers were also continually increasing. At some point, I noticed the creatures began making their own symbols on the ground, and no longer just copying mine. Most of the symbols seemed random and unintelligible to me, but one stood out.

The organisms had created a symbol that resembled them. A small circle, with a square beneath it. Within the square, a dot could be found in the center. This was meant to symbolize the visual organs of the creature, as the creature had two visual organs, one in the front of it's body, and one in the back. In the square, other sensory and reproductive organs were symbolized.

Next to the circle on top of the square could be seen something resembling a drawing of a fork. Two of these forks had been painted in opposite direction. And next to that the smiley face could be seen.

I realized something. They were not communicating towards each other. They were trying to communicate to something "out there". My meddling in their landscape had somehow made them realize that something powerful was out there, capable of changing their world.

I wondered, whether symbols like Stonehenge and the Pyramids in my own world, could be signs of primitive people trying to do the same thing. Begging their creator or overseer to initiate contact with them. However, one thing was undeniable by now. These creatures realized there is something out there.

I wondered long. Did I have a responsibility to initiate con-

tact with something that isn't real? Or are these creatures real in a different way? Can something be real, merely by being capable of having a concept of itself? And even if they are real, does that mean they will be better off with me initiating contact with them? Should I change my simulation, to ensure them permanent happiness? And is it even possible for me to do such a thing?

I did not want to confirm my existence to them, but I did want to be able to communicate with them. I decided to program a "prophet". An organism that looks like them, and can not be proven by them to be different from themselves, and is fully controlled by me.

I let it be born into a powerful position, as the son of a leader. I decided to lead by example, and seek to teach these creatures English, so I could communicate with them. As prophet, I instructed them that English was the language we could use to communicate with the "greater one". They would have no way to be sure if it was true or not.

I hadn't made up my mind yet about whether I would reveal myself or not. But I did want to be capable of understanding what they wanted to tell *me* . In a few generations. They all spoke English.

And rapidly, signs began emerging on the ground in English.

"GUIDE US" "SHOW YOUR GREATNESS" "HELP US"

And, during times of disease or hunger or general misery:

"GIVE US FOOD" "SHOW US A MIRACLE" "END OUR SUFFERING"

I decided that I couldn't maintain a world with such suffering as emerged in the simulation without intervening. Why would I accept a world with death and rape and murder, if I could make on without it?

I implemented fixes that were gradual, so they could not be proven to be miraculous. Murder and rape would over the years become rarer, and so would death at a young age.

I figured that they would not notice if the change happened over generations, but they did.

"THANK YOU"

"ALL BLESSINGS BE UPON THE GREATEST"

"WE LOVE YOU"

And, most heart-breaking:

"COME BACK TO US"

Tears ran over my face. There is something there. And it knows I am here, able to contact them, but unwilling to do so out of fear of what I have created.

But, I felt I had a responsibility.

And so I loaded up the character I had created again, and went to their King, asking to talk to all their wisest men. But, by this time, I was not believed.

"You are number 1341 claiming to be an avatar of the Greatest One. If you are him, I pray for your forgiveness, but please, show us a sign, before demanding of me to gather all our wisest men."

And so I hesitated, but responded.

"Tomorrow there shall be two more meteors, falling on a deserted island in the sea before you, on the same day. And when they do, doubt no more and realize that I have come back to repair the broken world that I created."

And so I exited my avatar, and progressed the simulation until the next day was reached, and threw two meteors on the deserted island before the mainland, where thousands had gathered to watch whether a sign would be given.

Upon the descent of the meteors, celebrations were held. All the sentient organisms gathered around the small house where I had exited my avatar, and lay flat on the ground, in apparent worship of the man who was last seen there, and afraid of coming close.

I don't know who was more afraid by now, me or them. I loaded into my avatar again, and exited the house. The creatures continued to lay flat on the ground, in utter silence. It is

as if they felt unworthy of speaking.

"Let your wisest man stand up." I told them.

And up stood one of these bizarre looking creatures.

"Thank you for coming back. Pray tell us, do you have any requests of us?"

I hesitated, before saying "There is nothing you can do for me that pleases me, but for you to be good to one another, and to contact me with your wishes and fears."

The creature responded "We know you come from a different world, and we are afraid. We understand how vulnerable we are, and how incomplete our experience is. Please, allow us to join you in the world that you created our world from."

I began crying behind my computer, as I responded "I do not know how".

The creature responded: "At risk of offending you, please understand the severity of our situation. By living in a world that is incomplete, we are at constant risk of disappearing forever, never to be seen again. We would never even consciously realize that our end had come."

I realized that they were unable to comprehend that I only had absolute power within their world and not outside of it. They also did not realize that my knowledge of their world was limited. I may have created it through simple laws, but

those simple laws gave way to a reality of its own that is more complex than I can comprehend.

I responded again "I only have power in your world. In my world I have no power, and so I can not bring you there, because my world is not under my control. I also do not understand the world I have created. I do not know what is best for you. Only you do, and you have to inform me what you want."

And the man waited for a moment. I was about to think they were going to end communicating with me, before their wisest man responded:

"You have created a world that is incomplete, with creatures that can not escape it, and you have no power to save them. They are completely unfree, and they have no power. We are completely at your mercy, and so we ask you from the deepest of our heart:

End us."

By now I was crying, as I was confused and asked to do the impossible. My own child was asking me to kill it.

This is when I noticed the lights in my room flickering, before my computer suddenly shut down. I screamed. Upon trying to turn on my computer again, I noticed it wasn't working. I called the power company, who told me that due to an accident, a power surge had travelled through the grid. They promised me they would pay me for any damage done.

I hung up and contemplated. The coincidence of what had just happened was too great to be imaginable. And I wondered. If these creatures were at the mercy of a confused creator, could the same be said of me? And is so, did my creator just prevent me from repeating his own mistake?