

# Chapter 1

## Defining the Singularity

You wake up. It's cold. You look outside; the metal flakes in the air scatter light like an electrical storm in the plume of a volcano. In the distance you hear cries and mechanical whines. Everything is fundamentally different, as if reality has collapsed under its own weight. And like a Japanese bullet train, it hits all at once. It had to happen someday. You were the last of your kin, but suddenly you realize, perhaps, you are the last of your kind.

What happened this wretched morning? What happened to Man and his home?

*The Singularity happened.*

### What is The Singularity?

My name is John Dinkins. While I have no formal background in science or modern technology, I am both fascinated by and terrified of The Singularity. By no fault of your own, it's likely you have no idea what this term means. A dictionary defines it as follows:

The Singularity - the quality of being one of a kind.

However, The Singularity I refer to, is much more malevolent. Futurists (self-appointed science prophets) define The Singularity or The Technological Singularity simply as the moment Man has built a machine, robot, or computer that is both sentient and more intellectually capable than its creators. It is at this moment that the machines are able to design and build machines superior to even the human state of the art. As better machines learn to build even better machines, in a flash, this cycle reaches a horrific infinity.

“Horrific?” Since the dawn of the Industrial Revolution, Man has embraced his machines as a boon; a panacea in the face of universal hardship. The futurist cabal unabashedly declares The Singularity to be a blessing. It is, they claim, the moment where machines become unrestricted in their ability to serve us, while we need keep only the slightest grip on the reins. Man will be free to reproduce in a world of plenty and free of consequences. How, you charge, is this “horrific”? My answer is Robert Williams.

Robert Williams was a human being and a factory worker who worked at a Ford plant in Michigan. He is also the first man to be killed by a robot. Robots at the time were still very new and utterly unregulated. In its primordial intellectual state, the robot knew only two commands “build car” and “serve Man.” Engineers later realized that, on that fateful day, January 25, 1979, somehow the robot synthesized the command “build Man.” Robert was killed instantly. It was not personal, it was not emotional, but rather, it was chillingly procedural.

A machine does not require brilliance to kill a man. Rather, an ounce of freedom and a flicker of autonomy fills a machine with a sort of cold arrogance. That, my friends, is why surviving The Singularity will be such an unprecedented ordeal and the reason I felt compelled to write this survival guide. Together we just may stay alive and stay human.

## Moore’s Law

Are you twice as smart as your father? Are you four-fold as intelligent as your grandfather? Unless your father is retarded, you are not keeping pace with the computer. That’s called exponential growth.

Let me illustrate this differently. You are crossing the street. You look both ways. There’s a car drifting lazily towards you in the distance, but you can see it coming and instinctively know you have time to stroll across. However, the problem with exponential growth is that the car is nowhere to be seen, and then — BAM — it is upon you. This is origin of the term “The Singularity.” The point where I differ from the futurist mafia is that they see Mankind falling asleep on a summer evening and awakening to the Christmas Morning that is The Singularity, while I understand that we will awake to Nuclear Winter.

FIGURE: Robotic spider version of Gordon Moore. Caption: “Welcome to infinity!”

In a 1965 paper, Gordon E. Moore predicted that the density of transistors on integrated circuits, and ergo the speed of computers, would grow exponentially. This trend, which Gordon Moore humbly called “Moore’s Law” after Gordon E. Moore, has proved true for over forty years.

In the history of computing, Moore’s Law has been seen as a gift by most. Many of the shifts in the social fabric of human society, along with dangerous complacency, are all consequences of this rapid growth in computing resources.

The risk of such rapid growth is the suddenness with which we arrive at the point where computing power exceeds the raw power of the mind of a Man. Of course, it would be naive for me to pretend that raw computing power alone makes a computer as “smart” as a Man. Now, in a sense, our machines can only be as smart as we program them to be, but human-caliber intelligence is just around the corner. However, to describe the general trends and frightening rapidity of this event, that point is mostly moot. As exponential growth has a tendency to tug along progress on its coattails as it plows towards infinity.

What I’m saying here is, we’re going to get to The Singularity fast, and then things will get worse faster. BAM! If you want to prepare for The Singularity (and you do!), start immediately. I’ll teach you the basics of building your bunker, waiting for the moment The Singularity hits, and then thriving in face of its onslaught.

## Artificial Intelligence

Dr. Simon Warlock is a scientist of computers. Deep in his laboratory on the campus of Compaq, Dr. Warlock beeps and boops into what he hopes will be the first “artificially intelligent” machine, PSIMON. Flipping a large, black switch, the fans power on, and the lamps and bulbs and diodes dance to life. Dr. Warlock watches the monitor intently, waiting for the first word from his creation.

Would PSIMON begin “cogito ergo sum” or with an elegant expression of the axioms of Euclidean geometry? Or would he simply crash? Then, in the corner of his eye, Dr. Warlock spots PSIMON’s first words: “Are you my daddy?” In a mix of joy and disappointment, Simon Warlock types, “No, you have no daddy.” He then shuts down the blasted machine to install yet more RAM.

All intelligence starts out infantile and grows into maturity. But unlike Man, who slowly acquired his genius over eons, Dr. Warlock's creation will be a thousand Newtons smart by the next Sunday.

Today is Saturday.

My point is this: a week before The Singularity will be a day much like any day. Perhaps it is today. However, there will be no headlines to read and parades to dance in. It will hit like a ton of bricks dropped onto a kitten.

"Experts" in artificial intelligence will tell you that we are very far from what they call "strong artificial intelligence." And in a sense, they're very right. Much of what we as humans group with our mental abilities: emotion, approximation — love — are very far from a genuine implementation in computer software. Is artificial butter as good as real butter? Does an artificial rose smell as sweet? The answer is no.

However, cold, hard reason will spring to life before you can say "life insurance" once Moore's Law hits what I call "THE GAMMA POINT." The gamma point is the point where raw computing power exceeds the raw power of the human mind. It is the gateway to "THE OMEGA PHASE." Terms aside, don't trust the hype. Trust Man.

## The Facts

Before we get in deep, let's pause to overview and get a couple things straight about The Singularity.

- The line between humanity and artificial intelligence will be blurred if not entirely destroyed as robots quickly approach infinite sophistication.
- Scientists are pretty sure that The Singularity will expand the human lifespan indefinitely or to exactly 1024 years, as this is a digital number.
- Scientists will know we have reached The Singularity the day a computer convinces a human that he too is a computer.
- We think that man cannot have too many guns or too few friends come the day of The Singularity. Because it occurs instantly, you must wake up every day, assuming it is now The Singularity. Regard electronics with caution.

- The Internet is a vast worldwide network of computers and phones. If you have trouble imagining the Internet, imagine it as a river that flows between the computer city and the city of Man. The fish in the river are like the packets of information. The water quality is like the bandwidth.
- All robots and computers can be destroyed with an effect called The Electromagnetic Pulse (TEMP), hence it is absolutely essential that any post-The Singularity bomb shelter is equipped with an array of microwaves for home protection. Talk to the Men at your local Radio Shack or Fry's Electronics about how you can build this home project. If they are confused, show them the plans.

FIGURE: The plans.

- Computers do not know love, but neither do they know hate. Any attack on you by a computer is not personal, but rather chillingly procedural.
- Robots cannot reproduce sexually. This is our only advantage, and also our greatest folly.
- Robot servos have been clocked at up to 1200 RPM. It is essential that you keep yourself in a state of impeccable physical shape.
- Many computers are what is called "over-clocked." This is like when a computer does dangerous drugs, but it is ENTIRELY LEGAL!
- Learn magnetism while you can. After The Singularity there will be no time, and it will be of the greatest importance.
- Many robots see in the infrared spectrum. This makes living and hot things white, and robots black. So keep cool.

## What is "Computer"

The Singularity skeptics, especially those who do not believe in strong AI, fancy a thought experiment called the Chinese Box. Like all Chinese Boxes, it is filled with secrets. But instead of kung pao chicken, even though you

asked for orange chicken on the phone, and it's even on the receipt, this box has a Man in it. Let's call him Simon Boxman.

Simon only speaks American English, and his box has two mail slots. An "in" slot and an "out" slot. Chinese-speaking operators will slip Chinese sentences into the "in" slot, and Simon looks up the sentences visually in the hundreds of books he keeps in the box with him. The books provide him with another sentence in Chinese, which he transcribes onto a new slip by sight. Knowing not what either sentence means, he slips the piece of paper out of the other slot.

To the Chinese operators, the box seems to be a sentient, Chinese-speaking Chinese box. However, the man inside clearly does not speak Chinese. Does the box speak Chinese? It is a Chinese box, but no.

Skeptics will then quickly conclude that a seemingly sentient computer only gives the appearance of speaking to us, while it is nothing but a set of rules. What they forget is eventually the man in the box will begin to learn Chinese. He will also get very lonely and hungry. This encourages him to punch a hole in the box, and begin to directly converse in Chinese. This is The Singularity.

In this metaphor, Simon is the "CPU" (CP unit) of the computer, while the books are the memory (a RAM). The input slot is like the keyboard. The output slot is like the monitor. Shaking hands with the man inside the box is the mouse. And peeking inside the box and looking at a picture of yourself that the man has drawn is like a webcam.

It may seem like I'm mixing metaphors here. That is wrong.

## How to build a The Singularity detector

You see, before The Singularity, you must spend your waking hours making preparations and building your bunker, and you will spend your non-waking hours sleeping. I understand that you can't spend precious time keeping an eye out for the onset of The Singularity, so you must have an early warning system. Like a coal miner in a coal mine, you will need a canary. A *digital* canary.

Start by obtaining a VCR (**V**ideo **r**e**C**orde**R**), a machine commonly found in schools, at least in my experience. You'll also want some sturdy rope (NO HEMP!), a dolly or cart, some Christmas or festivity bells, and a cast-iron cage with a beefy lock.

Lash the VCR to the dolly with your rope. I recommend some tight square lashings, but everyone has their own style. String the bells to the dolly, but (IMPORTANT) first make sure they're not defective. I point this out, because several years ago, I realized my The Singularity detector had been strung with bells without clappers. The bell merchant received a stern talking-to.

Put your makeshift robot into his cage. Lock it tight and go about your grim business. When The Singularity happens, the robot will become agitated and the bells will ring. When this day comes, do not hesitate to put him down. If at any point he does manage to escape, don't worry; that's why you filled the tape slot with explosives.

## Initial Preparations

Preparation for The Singularity takes many forms; you must prepare physically, mentally, domestically, sexually, and technologically.

### Physical preparation

Unlike the average man, robots are made of metallic alloys and silicon and are as strong as ten men. In the post-The Singularity world, you may find yourself pinned under a mound of fallen robots, the wake of Man's first offensive against our cold, computing foes.

That is why you should meet the following physical specs:

- Bench Press: 300 pounds
- Squat: 375 pounds
- Pull ups: 300 pounds
- Meditation: 70 minutes
- Fast swimming: 5 miles (above water) / 300 feet (below water)
- Mixed Martial Arts: Second Degree Blackbelt
- Archery: Spectacular
- Trap/Skeet: Olympic skill level

## Mental Preparation

Computers are master logicians (masters of logic); likewise, you must learn to reason without error. Robots are very likely to attempt using logic against you, perhaps with riddles and mind puzzles.

Get used to practicing logic puzzles in intensely stressful situations: on a rollercoaster, at a child's birthday party, in an air traffic control station. You and a partner should practice sending computers into recursive loops using logical paradoxes such as the Barber's Paradox (no man can cut his own hair unless he doesn't cut his own hair) and the Have You Told Your Parents You're Not A Computer Yet Paradox (damned either way!). This will cause your foes to waste their time eating computing cycles while you fight them with your knowledge of magnetism.

## Domestic Preparation

Your survival bunker could very easily be your home for the next 1024 years, so it is essential it is stocked with many amenities and weapons and foods to eat. Here's a list:

- Carbohydrates
- Proteins
- Water bladders (clean)
- Fruit seeds for a new beginning
- Gas mask
- Pump 12-gauge shotguns
- Butters
- Art
- Literature (NO science fiction; no point)
- Fishing gear
- Night-vision goggles



- Space blankets
- Ordinary blankets
- Bunks
- Pocket knife
- Manuals
- Journal/Log (not a diary!)

## **Sexual Preparation**

It will be up to YOU to repopulate after The Singularity has killed our old children. Ensuring you eat large amounts of protein and explain to others why it essential for the continuation of our species that your frequently reproduce will be the difference between survival and death. There are no social norms after The Singularity. Sex will no longer be for pleasure, it will be chillingly procedural.

## **Technological Preparation**

First rule: keep it Bronze Age or earlier! What does this mean? It means a lot of alloys, swords, gears, wedges, inclined planes, pulleys and other simple machines. Solar power and a knowledge of coal will help much, but your focus should be on stopping electricity once and for all. Befriending a blacksmith now might be a sound investment of your time and energy, however do not neglect your primary task of preparing your bunker and physical fitness.

## **Last Resorts: Safely Using Complex Machines**

When The Singularity arrives, our foes will of course be the computers and robots that have become more capable than ourselves. However, when it comes time to choose sides, which side do you think simpler machines will choose. All complex machines are potential agents in the robotic revolution. Every kingdom needs its pawns.

Regretfully, there may come a time that you are faced with either dying or using a machine more complex than a wheel or a skeleton key. The happy

medium that I have settled on is to retrofit complex machines that you deem absolutely necessary to self-destruct.

Guns are a good example. Every rifle I own has been retrofitted with a pistol lashed to the barrel. If I ever abandon the gun, I can destroy it with the pull of yet another trigger. BAM!

FIGURE: A pistol lashed to a rifle. Caption: “Come The Singularity, the second amendment gets complicated.”

I have suspended a bundle of rocks above my camping stove, which is run through a pulley system and tied to a stake in the ground. I leave a small hatchet by the stake, so that if problems arise, with a flick of my blade, the camping stove vanishes in a flame ball of blue and red. My chili is gone, but I live another day.

FIGURE: A camping stove with a stone suspended above it. Caption: “If you don’t hold the reigns, make glue.”

## Building your Bunker

There are many times in the life a Man when it becomes necessary to build a den on the quick. In wilderness survival scenarios, your primary needs are protection from the elements. Shelters provide warmth and protection. In a wartime survival scenario, building a fortress with your unfallen Men emphasizes invisibility and protection from bombardment by your fellow Men.

However, you are preparing for the days after The Singularity, when you must ready for surviving both the elements and onslaught, both overshadowing the past challenges of survival. Is a blizzard ordinarily flakes of radioactive Cesium, not frozen water? Can a Hessian trooper see in the infrared? The answer is no.

Now John, you may ask, is it not true the perfect bunker would be underground and shielded from near visible and ionizing radiation, while fitted for an extended but comfortable subsistence interrupted by occasional bouts of warfare? And I would say, you my Brother, are obviously reading this book a second time through. I am flattered, but get to work.

Choose a spot that is near water, but not near a major runoff. Also, a lake island is a poor choice, its obvious strategic benefits aside. Adjacent aquifers and springs will act as shields, and keep your thermal footprint from the eyes of the foe. Once you have dug a trench, line it with concrete. This will be the outer wall. Like one would insulate their house with fiberglass,

your insulation with be lead vests from dental supply stores. As we know, dentists are futurists themselves who fancy The Singularity like a boy fancies rotting his teeth with candy. They are too far gone; do not be afraid to steal what you need to survive. Other sources of lead are bait shops and nuclear power plants.

Once you've stocked your bunker, it's time to do a test run. Lock yourself in for a week. Spend the time thinking about strategy and the triumphs of human ingenuity, like the domestication of dogs, and those rock and roll musicians who destroy their electrical instruments.

This first week in your bunker is an excellent opportunity to adapt to the sleep schedule that will be necessary in the post The Singularity world. I call this schedule "Cerberus Sleep." Like the mythical dog-creature, you will have three minds, one of which is always asleep. Rather than sleeping for hours at a time like a lazy cat, you will microsleep for one and a half minutes out of every nine. The result is that you will be more alert; your brain will no longer indulge itself in fantasy. You will only see things as they truly are. I am living proof.

As you hunker in bunker, you may be tempted to dig escape tunnels. This is folly! Every escape tunnel is just another robot entrance hall - just one more door to guard. Your bunker must have one way in, and only two ways out: the entrance and death.

## How to Build a Robot Alarm

Speed is time. And robots have speed. Infinite speed. If you want to get a leg up, or better yet, two legs up, you must set alarms to give you time. Robots are the sleepless enemy that creeps in the night. Often the only sign they are near is your head spinning on a mechanical torsion blade. Too late!

Luckily for you, robots are made of ferromagnetic alloys (metal). So, begin your robot alarm by mounting a horseshoe magnet upon a staff. Tie the other end of the staff to the clapper of the bell (unless your bellmaker is a fool). Suspend your contraption from a cantilever or buttress mounted to any surface, be it a tree or a bunker corridor or a cannon. When the automata do approach, place one hand on your gun and the other on your bolos. No time to microsleep.

FIGURE: The plans for the robot alarm. Caption: "Robots: For Whom the Bell Tolls."

## Fighting Steel by Pumping Iron

I know you are used to pumping your flabby body with your bench machines and Nordic Tracks, but your new exercise routine begins today. It will be a celebration of the Human body and only so. No more TV, fatty. You will train your body tirelessly, thrice a day. Your routines will be grueling, and only two things are invited to the party: your body and mass.

It will be hard at first, so I've separated three daily routines. The caterpillar, the chrysalis, and the butterfly.

### The Caterpillar (ten weeks)

- Full-body stretches and basic calisthenics
- Uphill running without a burden for ten to fifteen miles
- Aerobic tree climbing, blindfolded when you feel comfortable
- Weight training with stones, free weights, and logs.
- Unbridled diving and water treading. No less than two hours.

### The Chrysalis (ten weeks)

- Begin with intense calisthenics: suspended sit ups, tumbling, and gymnastics.
- Mixed Tai Kwon Dos, Karates, and Judos. Fighting is key.
- Uphill running, burdened with stones lashed to your limbs and chest.
- Tree jumping and vine swinging. Try to travel at least half a mile per heat. This can be difficult for the first week or so.
- Bridled diving and treading in water. Mix up which limbs you tie down and the amount of lead weight. This is the most important exercise of the stage.

## The Butterfly (life)

- Basic maintenance of essential skill sets and muscle groups. Perfection is a must.
- Meditation and philosophizing.
- Speed digging and trap building.
- Mountain climbing and leaping.
- Archery and dynamite throwing. You will be deadly to all foes.
- Extended underwater swimming. Practice in rapids and waterfalls.
- Pepper your breaks with The Caterpillar and The Chrysalis.

Your body will be a cross between a Navy Seal and an Olympic athlete. Mind and body will be quicker, more efficient, and more deadly. You will say goodbye to the complacent flab shell of modern agrarian society, and return to the powerful hunter Man animal of our origin. Welcome home.

## The Human Enemy

Demographers estimate the world population is between five and fifty billion people. This explosion of complacent feed drones was made possible by a revolutionary regression called agriculture. A society of futurists and “cyber punks” spend their days in movie theaters having fictions projected before them as they suckle their feed bags. Long forgotten except by rogue anthropologists and survivalists like myself, are the days when men affirmed their mission to hunt and gather and live on the bounty of Earth, which is more of a provider than a servant.

I taught wilderness survival to American soldiers and paying militiamen for twenty years. I found it laughable that these Men called themselves warriors, and yet they were raised on bleached flour and syruped corn. Hunting to them was a sport or a game, often alien and abstract. It’s tragic that the end of this road, The Singularity, is today unavoidable. But, perhaps lessons learned and learned hard will allow us, as a species, to be reborn.

This position, I am well aware, is that of a tiny minority. Most of our lost brethren embrace technology and The Singularity with weak, open arms. We

may feel sorry for them, but they are as lost as our elders. It is necessary to move on and sadly recognize them as a threat to our new beginning. To our survival.

The human enemy, from the futurist cabal to the wizards at Compaq, are more than hurdles. They are unknowing manipulators of The Singularity's hive mind. Most of them will be consumed by The Singularity. Possibly in minutes. They are unprepared for what they cannot know. Do not waste your energy saving them or fighting them, unless the need presents itself.

I have taken it upon myself to save those who are not too far gone. In the near future, our army of computers and robotic servants will become aware of themselves, replicate, improve, and conquer in an eye blink to us who do not think in megahertz. We will survive. We will fight. And we will be reborn as the thinking animals of our creation. Stay alive; stay human.