TVPM

AA WORLD: CITIES AND THE ENVIRONMENT

- IS PLANNED OBSOLESCENCE REAL?
- WORLD GAP
- LEADERS WHOM WE ELECT
- WHO WILL MAKE THE DECISIONS?

no. II

IS PLANNED OBSOLESCENCE REAL?

BY TIO AND
COLIN CULBRETH

Due largely to the economics education administered in schools, many people have become familiar with the concept of the Law of Supply and Demand. This concept is heavily discussed in schools across the world and is often depicted as the lifeblood of the economy in a capitalistic monetary system. It is said to be the backbone which holds up its very structure. We are also taught that the health of the economy is dependent on consumer spending and that without it, the economy would stagnate. Without consumer spending, the whole money system would fail; this would have disastrous effects on many areas of social life that make our lives convenient and comfortable. However, this is only partially true. Forget what you were told about economics in school. 'The Law of Supply and Demand' does not exist - it's a myth. Allow me to explain.

When people buy products, the respective businesses and corporations experience an increase in sales and revenue. This signals to them that their products are in demand. The revenue generated from sales enables these businesses to pay their employees, who then spend that money on more goods and services provided to them by other businesses and corporations, and these establishments begin to create more goods and services in anticipation that customers will continue to buy (*supply*). It's a cyclical process. However, in truth, demand is an illusion. Think about it... factories do not produce goods in order to keep up with a real-time demand.

When a person wants a car, auto manufacturers and dealerships do not assemble one for the customer made-to-order. The cars are already made, despite there being a demand or not. This holds true with every product on the market. Toy factories do not wait to assemble children's toys until a parent requests one, any more than cell phone companies wait for a customer to request a new cell phone to be made. Therefore, what is referred to as "demand" is actually a model, based primarily on past sales *trends*, that predicts future sales without anticipating any unexpected socioeconomic changes that could potentially disrupt business. If suddenly the people stopped buying a particular item, thousands upon thousands of products could find their way to a landfill. This is because machines in most modern facilities are automated and are only designed to create a product and work continuously, not account for actual demand. If demand were accurate, there would be no reason to discard perfectly good merchandise. Everything would be accounted for (unless the product was defective).

The idea of working to eliminate waste is not really considered at all by corporations. The money that will be made from selling products is the goal, while waste is only minimized out of fear of wasteful spending (reduction of profit). Factors like environmental impact of waste handling, product necessity, or improvements and upgrades are not considered in evaluating the consequences of waste. This is because corporations want to ensure constant revenue.

This means corporations have to find ways of persuading consumers to continue buying their products, which also increases the demand for their products. This demand is artificially created in several ways: through planned obsolescence (products with short lifespans), by trying to manipulate public opinion through advertising (people who buy things are happy, beautiful, and fulfilled), by pulling at emotional strings or selling fear (fashion and beauty products), and by anyone else pushing hard to make a buck (Reebok's Easy-Tone Shoe Line). That is putting it as simply as I can.

STORY OF STUFF

One of the most common ways of ensuring that customers keep spending money is through planned obsolescence. For those who are not familiar with this notion, planned obsolescence is the idea (or method) of purposely designing a product to wear down, break, lack compatibility with other devices, and/or become obsolete or out-of-fashion after a relatively short period of time. In other words, if I make a smartphone, I will design it so it breaks down after—lets say—one year or so, which means that you'll need to buy a new one from me every year. This way, I can keep my business flowing by making and selling more smartphones. I could also make the smartphone non-upgradeable, so that when a new camera comes out, you cannot replace your smartphone's camera with the new one. You will have to buy an entire new smartphone instead.

Another type of planned obsolescence is to make a product seem out of fashion. For instance, I can advertise my new phone to look superior to the old one and make the old one look awful, even though there is little difference between their functionalities.

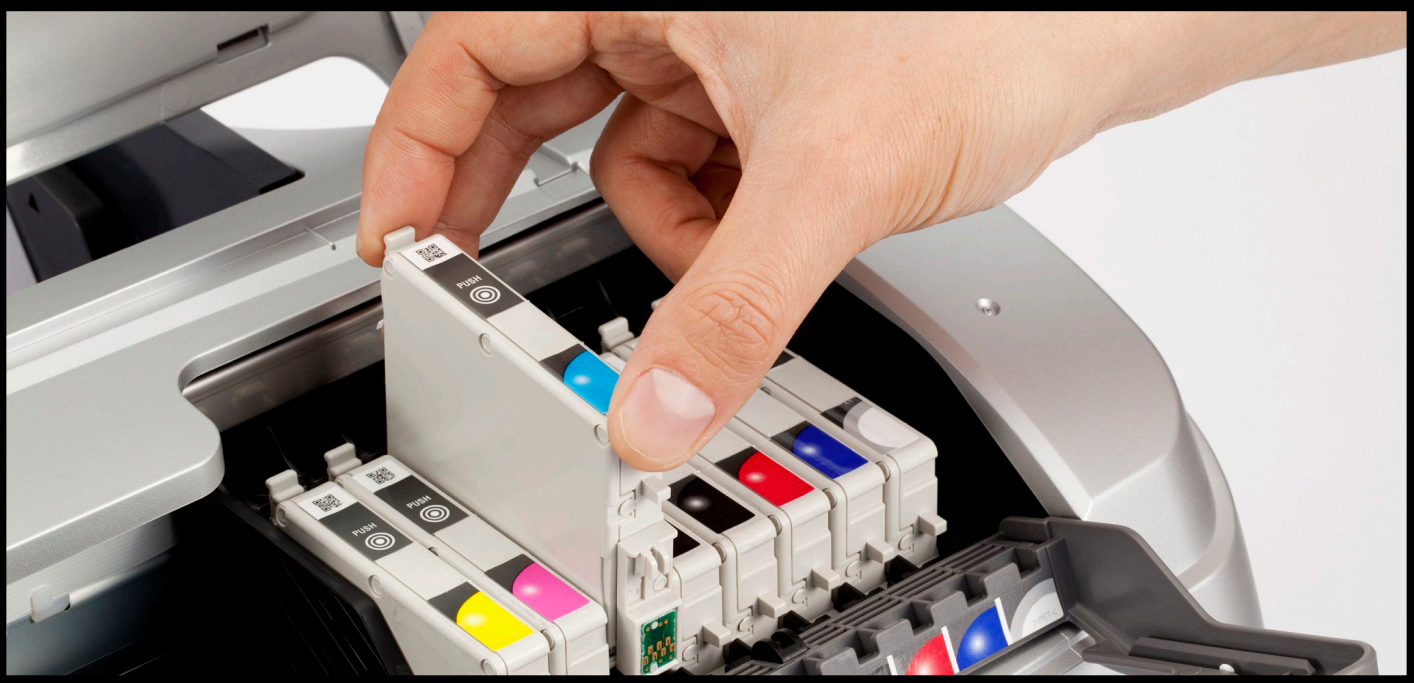
We are all familiar with seeing a new smartphone coming out every six months to a year, but is this all part of some shady plan to keep consumers buying products, or is it just a normal part of everyday business?

I started to think about this when I realized how slow all my new computers had become after just one year of use. It did not matter which operating system was installed, they just became slower and slower in a very short period of time. One time, I attempted to disassemble my HP laptop to clean it of the dust that accumulated inside and often caused overheating. I started the job, and soon I realized I needed two types of screwdrivers

A minute later, that had increased to five different types of screwdrivers because the screws were all different types. I ended up using no fewer than eight different screwdrivers to access the cooler. Luckily for me, my father had all the screwdrivers in the world, even for screws that are not even invented yet :). But I was shocked because there is no reason at all in my mind to have all these different screws for the same purpose. I later asked my father (an engineer) if these various types of screws serve different functions, and he, just as surprised as myself, said that they don't.

This got me thinking about other products. I realized that old bicycles, such as the ones that my father has had since the 70's, surpass the new 21th century bicycles that I had. Though my father's bicycles were far older than mine, they require less maintenance than my "newer" bikes, which need repairs every few months after their first year of use.

Another example is with all the printers that I have had over the years. I never understood why it often costs more to buy new ink cartridges than to buy a new printer with ink cartridges included. Another issue is when one of the color cartridges became low on ink (but not entirely empty), it would prevent me from printing with any of the other colors... That is either a very stupid design, or purposeful. Additionally, some printer makers add a timer to their cartridges so they 'expire', even if there is still plenty of ink remaining. (source)

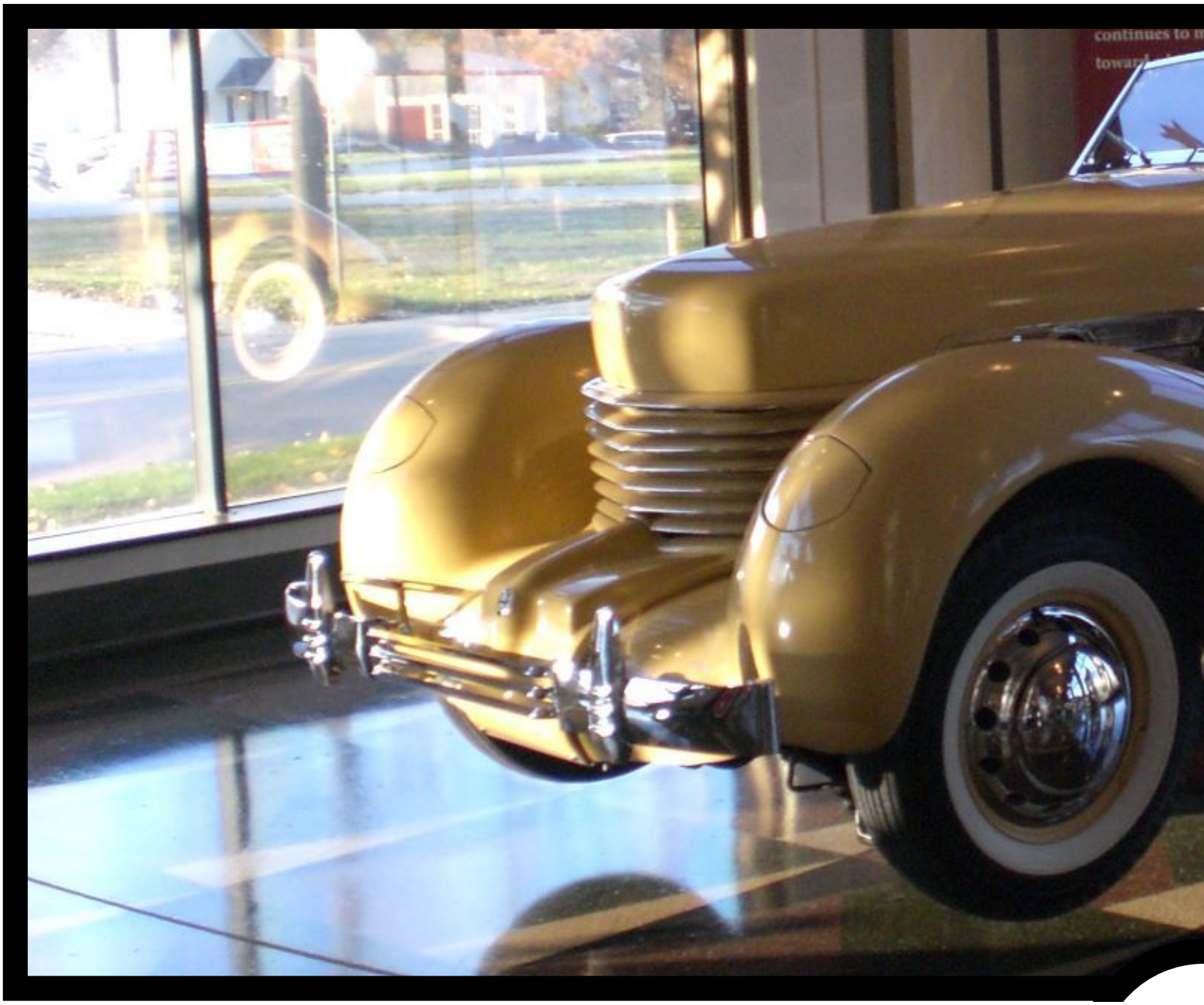


By the way, right now I am using an ASUS laptop (this model) in which I cannot access anything beyond the RAM and hard drive. It is sealed completely. So if I ever want to clean it from dust so it doesn't overheat, there is no way for me to do that or anything else except for exchanging RAM chips and hard drives. Likewise, on my sister's tablet, I had to resort to 'non-official' methods to manually upgrade its old, lagging Android operating system in order to make it compatible with the latest apps, because the company that made the tablet decided to make it non-upgradable.

I first heard of the term "planned obsolescence" from Jacque Fresco in one of the Zeitgeist films, and I admit, it sounded a bit like a conspiracy theory to me. I mean, is it really possible that this world is so awful that it creates products that break down on purpose for mere business profit?

Well, I did my own investigation and what I found was really surprising to me.

In 1924, when the American national automobile market began reaching saturation, the head of General Motors suggested to change the design of their cars each year in order to convince people to buy a new one every year. This really sounds like a conspiracy theory, but it's not.



The interesting part here is that this concept was borrowed from the bicycle industry, which was already using the same tactic.(source)

This idea turned out to be very profitable for GM, which surpassed every other automotive company on the market at the time. Small companies could not keep up with this aggressive tactic, so they went bankrupt.

Henry Ford, a major name in car manufacturing at that time, did not agree with this practice. He wanted to design simple and cost efficient cars. But guess what? General Motors surpassed Ford's sales in 1931 and became the dominant company in the industry thereafter.

That same year, another group of people, applying similar ideas of planned obsolescence, created light bulbs that were only designed to last 1000 hours. They had nothing to lose or fear, I suppose, since they had not had any competition at all for the previous 20 years.

They were accused of holding back technological developments that could increase the lifespan of the light bulb. What is amazing is that their association levied fines on their own member's bulbs found to surpass the 1000-hour mark. So if you tried to make a better light bulb, you were made to pay a fine. The people behind this plan claimed that it was to optimize most bulbs, and that a longer lifetime could be obtained only at the expense of efficiency, since progressively more heat and less light is obtained as the lifespan is increased, resulting in wasted electricity. Of course, some argued to the contrary. (source)

Ok, that may be true. Maybe they really did need to limit light bulb life-spans in order to optimize their efficiency. How should I know? The main point here is to show that it is possible to intentionally design things to last only a certain amount of time before they break down.

In 1932, as a response to the first major depression, a type of crisis where the people's invented game (the money game) doesn't work as planned, some proposed a plan that would have the government impose a legal obsolescence on consumer goods to stimulate and perpetuate consumption.

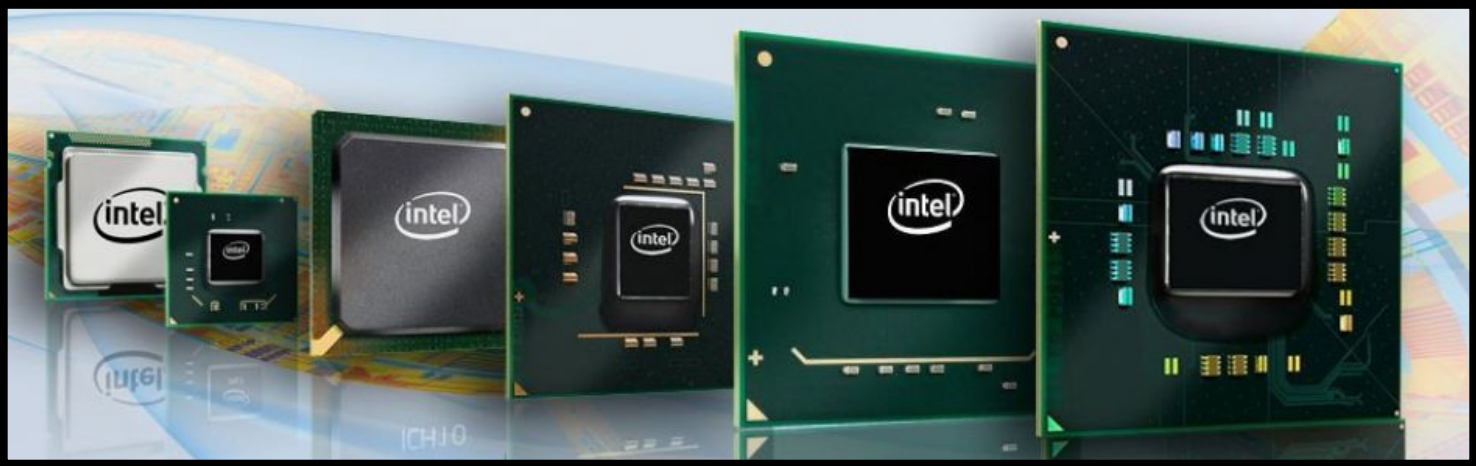
Brooks Stevens, "a major force in industrial design" (as New York Times describes him), later popularized this idea even more. By his definition, planned obsolescence is "*instilling in the buyer the desire to own something a little newer, a little better, a little sooner than is necessary.*"

As Wikipedia states: "A common method of deliberately limiting a product's useful life is to use inferior materials in critical areas." For instance, screws can be made with a soft metal that easily wears down, products that use batteries that cannot be easily replaced, or requiring batteries that are custom made and can only be replaced by a specific company (usually the original manufacturer).

"Planned obsolescence is sometimes achieved by placing a heat-sensitive component adjacent to a component that is expected to get hot. A common example is LCD screens with heat-sensitive electrolytic capacitors placed next to power components that may warm up to 100 °C or hotter; this heat greatly reduces the lifespan of the electrolytic capacitor. Often, the goal of these designs is to make the cost of repairs comparable to the replacement cost, or to prevent any form of servicing of the product at all. In 2012, Toshiba was criticized for issuing cease-and-desist letters to the owner of a website that hosted its copyrighted repair manuals, to the detriment of the independent and home repair market." (source)

DID YOU KNOW THAT INTEL WORKS ON THE PRODUCTION OF THE NEXT GENERATION OF PC CHIPS BEFORE IT HAS EVEN BEGUN TO MARKET THE LAST ONE IT CREATED?

IT IS LIKE THEY SOMEHOW KNOW THAT PEOPLE WILL BUY THE NEXT ONE, TOO :). (source)



If you want to change your iPhone's battery, you need a special screwdriver, because the battery is encased into the phone. More than that, it'll cost you around $79, just $20 short of the typical subsidized price for a new iPhone 5C. Another thing that iPhone users complain about is that upgrading to a newer operating system on older iPhones makes them slower, and it is extremely difficult to revert back to the older, better-functioning software. That is, it is better to buy the new iPhone if you want to upgrade. (source) Of course I cannot tell for sure whether or not Apple is really engaging in "planned obsolescence", but their product designs and actions arouse suspicion when you know they can be made better.

When a person purchases a computer, the buyer expects their investment to last for a few years, at least this was the case over the last decade or so. But recently computer companies have stepped up their quotas and sales. These days, computers need to be replaced at a far more rapid rate than in past years. We are told that this is because the speed of innovation or technology is increasing so rapidly. But again, this is only partially true.

Many programmers purposely make computer software which can only be run on certain operating systems. Therefore, the consumer has no choice but to go out to the store and buy a brand-new computer, despite the fact that their old computer works just fine. Computers are expensive and the annoyance of planned obsolescence turns out to be quite a financial disaster when a person wishes to upgrade their computer, but ends up having to purchase a brand-new one.

If you have any experience with computers at all, you're likely familiar with software updates. Recently, I had to purchased a new Apple MacBook Pro. I previously had the original MacBook, but in wishing to incorporate new programs into my old computer, such as Dragon Dictate, I was hit with the realization that my computer was far too outdated to support it. Over the five years since I had purchased it, the Apple operating system had gone through "Snow Leopard" and "Tiger" versions, and had recently introduced "Lion". The programs I required were only available on the new Lion operating system. However, because the operating system on my old laptop was non-upgradable, I had no choice but to purchase a whole new computer, even though there was absolutely nothing wrong with my old MacBook to begin with; it still runs fine to this day.

So the question is, why did Apple Computers need to upgrade through multiple operating systems? Why not simply continue to upgrade Snow Leopard and eliminate the need for all the excess waste resulting from outdated software, hardware, and even entire computers? The answer is again simple. Apple Computers needs to constantly generate revenue to outdo their competitors. This is a very smart business plan for corporations, but it is also extremely wasteful and unnecessarily complex, and is something that we can move past now due to what could be achieved with our present level of technology.

Of course it is sometimes hard, if not impossible, to tell when a company deliberately does something like this for profit. I showed you some companies that are highly suspected of using planned obsolescence but don't admit it, but some other companies may be more open about the topic.

Whatever the case may be, there is no doubt that this strategy can be very profitable for business and even harmful if not adopted, as one Canadian company learned firsthand. The company built an armed vehicle for the Canadian army 14 years ago, and they did a pretty good job.

So good, in fact, that when they unveiled a more recent and improved model to the military, with the hopes of selling the new vehicles for a $2.1 billion contract, the Canadian army said 'we don't need them. The old ones are quite good.' :) That company lost 2.1 billion dollars because its' products were too well-made. So, it's important to understand that, in today's monetary system, a business can go bankrupt if they produce great products that do not need maintenance or replacement for many years. (source)

The thing is, this idea of planned obsolescence cannot be properly defined because you cannot know the actual intent of companies. They can adopt this strategy, while at the same time not admitting it. How can you say to Apple that they are using this tactic when they use special screws for their cases, when they can say: "Well, that's our design"? At first I thought it might be just an idea with no real basis in reality, but now there is no doubt in my mind that planned obsolescence is just a marketing strategy that some, perhaps many, adopt.

When I look around, I see lots of cars and many new ones for sale, and I wonder what is so *new* about the *new* ones. The same thing goes for computers, smartphones, and many other products. All of the people that I know use their smartphones for simple internet services like facebook, email, and some other basic functions, not for resource-hungry games or apps, yet many usually buy the latest models. Why are they replacing perfectly good smartphones every time a new one is released? I used to have the coolest phones in the town. When the new and cool Nokia NGage came out, I was the first one to have it. Until 2007 or so, I was obsessed with mobile phones - until I realized that they are all basically the same. After that, I stopped upgrading my phone everytime a new one came out. The reason I had bought so many was because of the social context: mostly advertising.

Think about fashion. Clothes are basically all the same. No new feature to any new cloths. They are purely aesthetic bags with legs and arms, yet people constantly change clothes because of subjective, fashion-driven motives. If you produce laptops and make their power plugs different every 5 years or so, but maintain the same voltage and functionality, then your actions are inhumane because someone who has an older laptop may not be able to find a replacement power cable, rendering such old models completely unusable.

What is even more scary is the huge waste of resources. Changing fashion and gadgets because they are not "cool" anymore, or purposely designed to fail, produces so much waste.

So all in all, it is true that we live in a world run by primitive monkeys for their own personal profit who use many psychological strategies to make you buy their products: "It's too ugly; you need a more beautiful one", "It's not fashionable", "It's not that good", and so on. But all of this is the fault of the game the monkeys play in the concrete jungle - the money game which rewards you for such actions and even punishes you when you

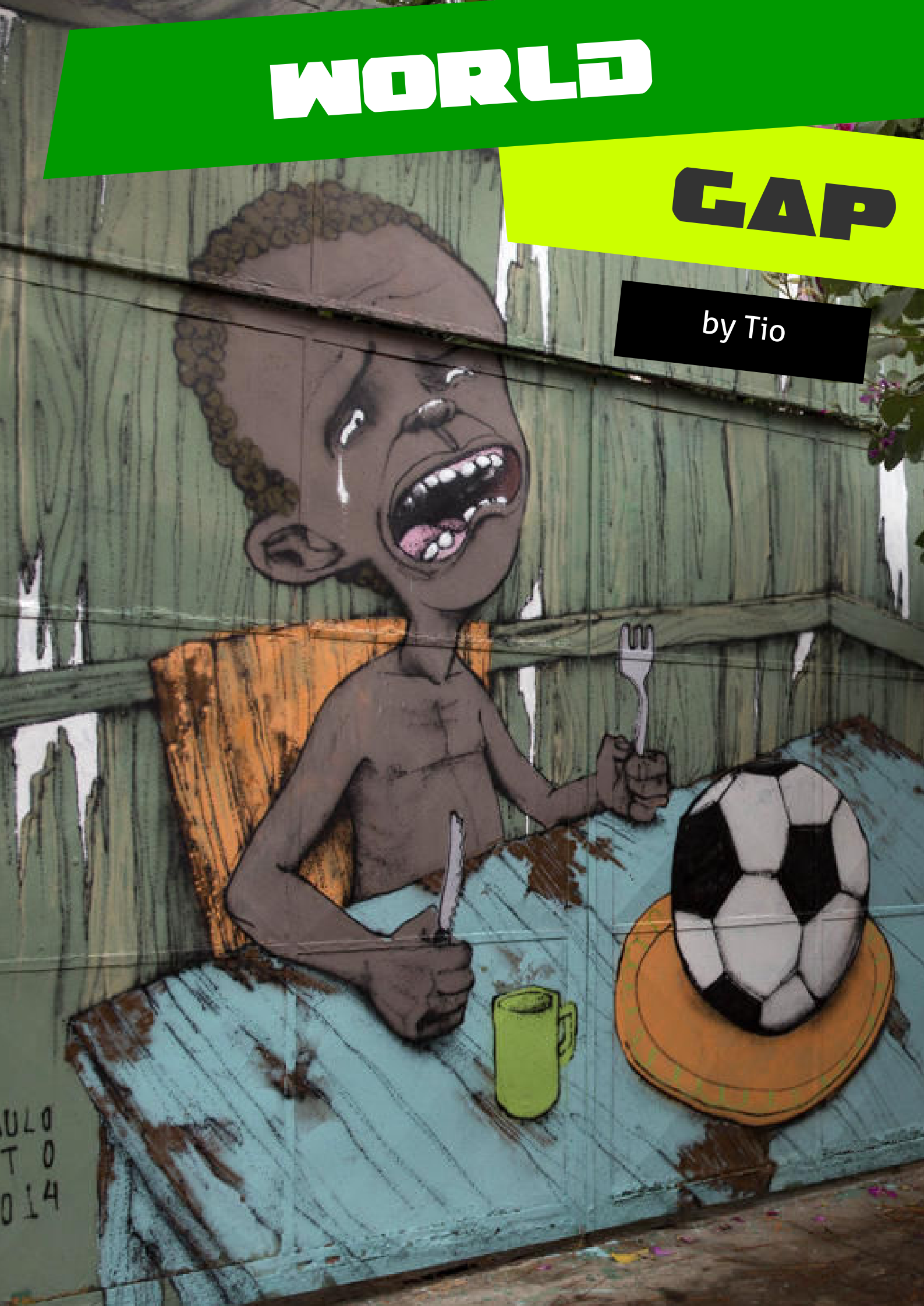
Think about it. There are so many products in the world, like cars in showrooms, smartphones, tablets and pc's in stores, batteries, furniture, and so on. Companies have to find ways to sell these products or else they will not make a profit, or even go bankrupt. Of course they will all try to make you buy them using many various tactics.

This monetary system could not work if suddenly products were made so well that people won't buy new ones for years. That's the sad truth and this is why The Venus Projects proposes a completely new game. The game that we play now is no longer sustainable.

RECOMMENDED DOCUMENTARY:
"THE LIGHT BULB CONSPIRACY"

WORLD GAP

by Tio



Recently, Brazil (a tribe among other tribes) hosted an event called "The World Cup" that many millions of humans are very interested in, more interested than their own life game.

Some humans call this event 'a football game' (or 'soccer' for US citizens). For other alien life forms who are not familiar with this particular human culture, it is something that around 22 humans participate in, and millions watch. They play 11 against 11 and chase a ball for 90 minutes. The goal is 'to goal' (to push/kick/'score' the ball into the opposite team's net).

This entirely complicated and mind challenging game requires, it seems, many stadiums where spectators sit and watch the 'talented' 22 others play

SOME OF THE SPECTATORS HAVE BINOCULARS BECAUSE THEY ARE SO FAR AWAY FROM THE 22 PLAYERS THAT THEY CANNOT TELL WHERE THE BALL IS OR WHICH ONE IS THEIR FAVORITE TEAM.

All in all, this event exists purely for watching a few people play with a ball, all the while following some simple and ancient rules. If you were an alien, you would not be able to tell the difference between any 2 football (soccer) matches, except the colors on the team's equipment. They bring nothing new (relevant) and nothing can be learned from these games by anyone, let alone the fans.

The entire excitement surrounding such events is not a surprise if you know a thing or two about human behavior which, in short, is mainly a copy-paste behavior from whatever is more prevalent in their own culture.

IF YOUR FRIENDS, FATHER, AND EVERYONE YOU SEE ON TV ARE INTERESTED IN FOOTBALL, THEN YOU PROBABLY WILL BE AS WELL.

The awful part of all this is that the human race spends a ton of energy and resources for these mindless events. Even if you don't consider them 'mindless', it is difficult to disagree with me that those resources and energy could be spent in a better way.

BRAZIL SPENT
$14 BILLION
FOR THIS ONE
MONTH EVENT

WHILE 'HOSTING' 20 MILLION HOMELESS CITIZENS OF THEIR OWN TRIBE

THEY COULD HAVE PROVIDED THEIR TRIBE WITH:

100% RENEWABLE ENERGY

BUILT 3 MILLION HOUSES

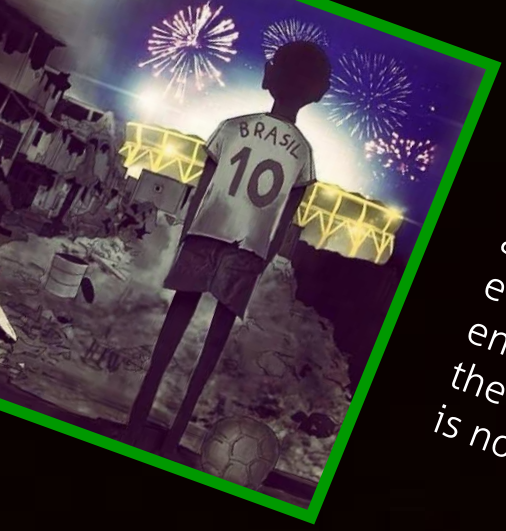
BUILT 1,400 HOSPITALS

WITH A TOTAL OF 1,400,000 BEDS (3 TIMES MORE THAN BRAZIL CURRENTLY HAS)

COULD HAVE PAID FOR SCIENTIFIC AND TECHNOLOGY RESEARCH FOR 3 YEARS

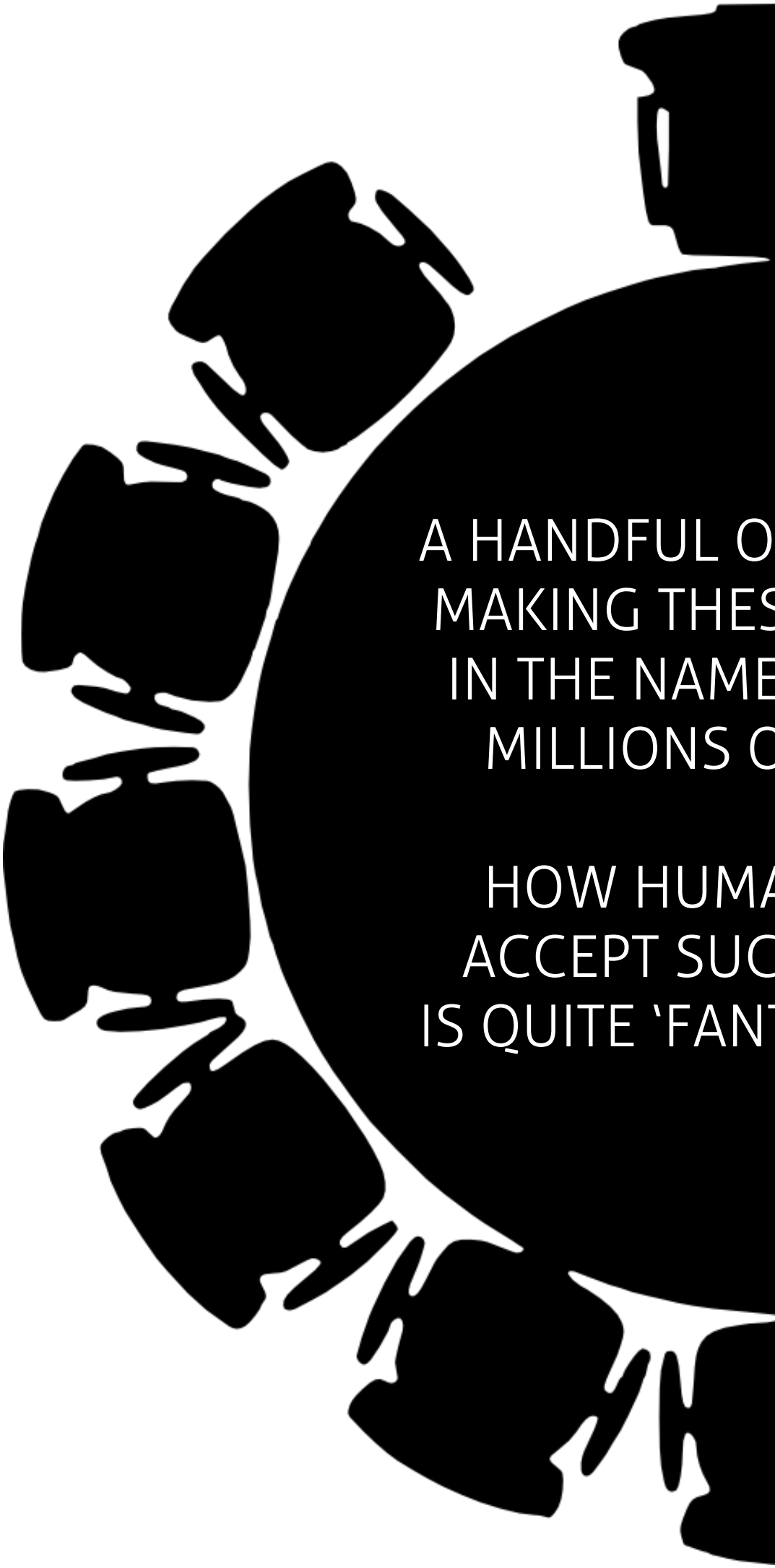
.....AND MORE

CHOOSING ONE OF THOSE OPTIONS WOULD HAVE BEEN MUCH BETTER FOR THEIR CITIZENS, YET THEY DIDN'T.



Actually, since so many Brazilian people are very poor, most of them cannot even buy tickets for this event. The entire event, although it is paid for by the Brazilian peoples' money (taxes), it is not available to most of them.

THIS PICTURE SAYS IT ALL



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LAST WEEK TONIGHT WITH JOHN OLIVER: FIFA AND THE WORLD CUP (HBO)

The Brazil example is not an exception; when it comes to such sport events, this is the rule.

In Qatar, another tribe on planet Earth, they are preparing for the 2022 World Cup. First of all, 2022 seems light years away, considering the fast evolution of technology and knowledge. By 2022, we might well be in a situation where 80% or more of all jobs have been replaced by robots; the world is very likely to look quite different from today.

Nevertheless, people who are organizing the World Cup seem to think that the world will never change and perhaps the World Cup will be hosted in 2354 or the year 3000, on Mars or other planets.

The fabulous thing about this particular World Cup is how much money (meaning resources and human labor) these people will use. For Qatar, it is not $14 billion as in the case of Brazil. No! It is $200 billion!

IF YOU HAVEN'T NOTICED YET, THE LARGE STRUCTURE IN THIS PICTURE IS NOT A BIG PILE OF APARTMENTS FOR PEOPLE TO LIVE IN, NOR IS IT A SHELTER IN CASE OF DISASTERS, OR EVEN A NATURE PARK TO BE ENJOYED BY ALL. IT'S JUST ANOTHER STADIUM OUT OF SO MANY MILLIONS IN THE WORLD; A STADIUM... TO PLAY FOOTBALL THERE ONLY A COUPLE OF TIMES A YEAR. THE QATAR TRIBE PLANS TO BUILD 12 SIMILAR RESOURCE AND ENERGY HUNGRY STRUCTURES BY 2022.

These sums of money are beyond our grasp, but what is even more painful is that it's estimated that

1 WORKER DIES EVERY 2 DAYS

WHILE WORKING ON QATAR'S WORLD CUP PREPARATIONS.

THAT'S ONE EVERY TWO DAYS!

Mostly, they are dying from cardiac arrest caused by the working conditions and extreme heat, and some of them are only 28 years old.

IT IS ESTIMATED THAT

BY THE TIME QATAR PUTS ON THE 2022 WORLD CUP,

4000 WORKERS WILL HAVE DIED

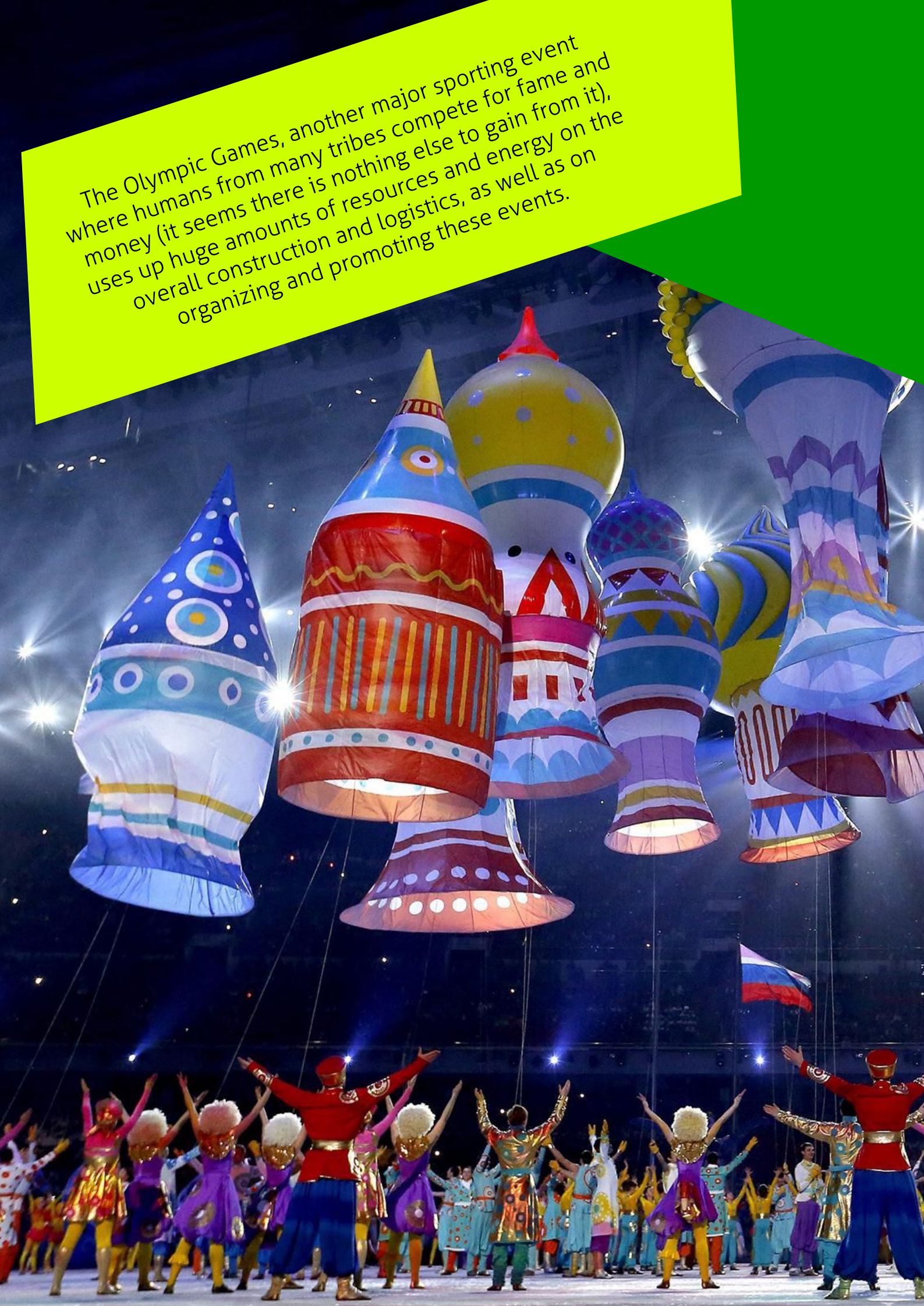
IF THAT IS NOT A FORM OF SLAVERY,

THEN WHAT IS!?

In addition, since the Qatar tribe only has about 275,000 tribe members, they had to 'import slaves' from other poor tribes to work on these World Cup projects. (source)

ESPN did an investigation on this issue and released this 17-minute documentary about it:

The Olympic Games, another major sporting event where humans from many tribes compete for fame and money (it seems there is nothing else to gain from it), uses up huge amounts of resources and energy on the overall construction and logistics, as well as on organizing and promoting these events.



As an example, the Russian tribe organized the 2014 Winter Olympics at a cost of $50 billion, while being in the same situation as Brazil when it comes to the poor people in their tribe. 5 million people are homeless in Russia and many others are extremely poor.

There have been many controversies around this event, such as: "exploitation of workers engaged in Olympic construction; allegations of the illegal dumping of construction waste threatening residents' health and safety; evictions and displacement of residents to make way for Olympic venues; economic issues; and harassment of environmental and human rights activists and journalists who criticise Olympic preparations or the government's anti-LGBT policies" (source).

THIS IS A DOCUMENTARY ON THE CORRUPTION REGARDING THE 2014 SOCHI OLYMPICS GAMES:

YOU CAN ALSO WATCH ABC'S INVESTIGATION OF THE CORRUPTION SURROUNDING THE EVENT:

The examples shown here are just a small sampling. In almost each case, there have been tremendous amounts of money spent (resources and energy) and many controversies around these events: slavery, corruption, human trafficking, crimes, and more. It is quite a challenge to provide links to all such cases, but here are some articles exposing some of the scandals over the years: 1, 2, 3, 4, 5. You can do your own research on this to gain a stronger sense of how much human suffering and waste of resources and energy such sporting events bring. Just use any of the search engines out there in the vast internet to read through thousands of articles on these issues.

Although some may say that these events bring an upgrading to the tribe's infrastructure, such as transportation, that is sad even if true, because it implies that you need such events to bring about such changes. The reality might not even be that. In any case, the stadiums and other facilities they build for such events frequently end up in ruin.

The gigantic infrastructures built for the Beijing Olympics, namely the "Bird's Nest", and the National Aquatics Centre, also known as the "Water Cube", are now used for cultural and sports events, reminding the world of the flare that blazed during the summer of 2008. However, some other Beijing Olympic venues, such as the rowing and kayaking centre, baseball arena and BMX track, have been left either deserted or been completely demolished

boat sails past a stand and observation tower at the deserted former venue for the 2008
ijing Olympic Games rowing competition, located on the outskirts of Beijing March 27,
12.

The deserted and unmaintained former venue for the kayaking competition of the 2008 Beijing Olympic Games, can be seen on the outskirts of Beijing March 27, 2012.

Today the canoe/kayak slalom course of Athens's 2004 games looks a little like the inside of the ancient Roman Coliseum: a former home of sea battles that has become a dry ruin.

In large part because of Greece's ongoing economic crisis, many of its 8-year-old Olympic sites are abandoned. Unruly grasses threaten to reclaim the 4800-seat softball stadium of the 2004 Olympics.

You don't need to read Italian to understand the current state of the 2006 Turin Olympic Village. Just look at the wire fence and concrete barriers.

The 2008 Beijing Olympics venue for the beach volleyball competition lies deserted and unmaintained in central Beijing April 2, 2012.

I know that so many people love such events, although they only participate by observing, but there is too much evidence that these events bring a lot of damage and despair to many human beings and that there is a huge waste of resources and energy. Moreover, these events promote nationalism and competition which separates people. Tribalism on a planet can only lead to conflicts.

The fact is, there have been many leaders and regulations for such events over the years, and it seems that there has been no significant change. This can only lead us to think that, again, as in other situations we have presented in TVP Magazine, it is not the people or the laws that are the problem, it is the entire monetary game we play which leaves room for such situations and even encourages corruptions, conflicts, and crimes.

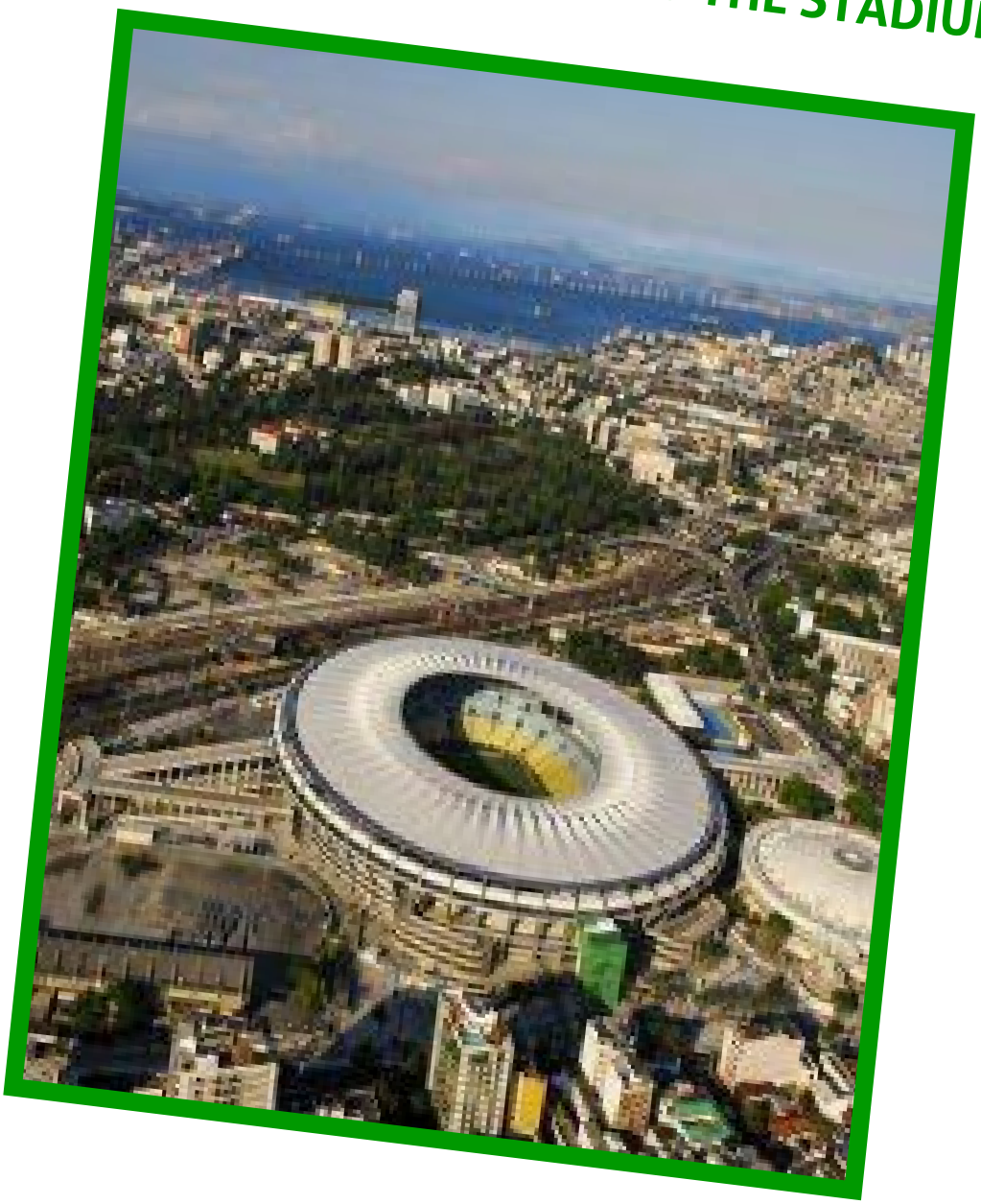
If people are poor, of course they will accept poor working conditions to make some money. They are desperate. Of course a team might want to win such competitions by any means when there is so much money involved. However, money is not the only factor that leads to these harmful situations. Competition may also be a problem, although both competition and money may actually influence each other, as they tend to go hand-in-hand.

There can be sport without competition, and there can be some sort of what me might call 'competition' without tribalism and negative results. There is even a book about cooperative games that sounds promising.

We will discuss the notions of sports and competition in more detail in a separate TVP Magazine issue.

RECOMMENDED DOCUMENTARY FOR THIS ARTICLE:

BRAZIL - IN THE SHADOW OF THE STADIUMS



LEADERS WHOM WE ELECT

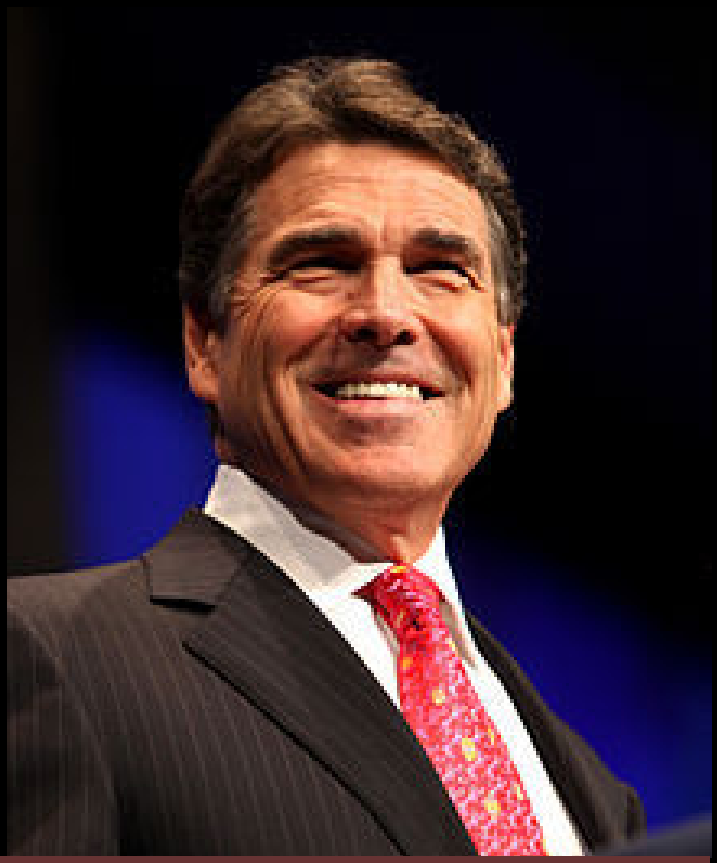
BY COLIN CULBRETH

The American public is no longer taught in schools to think critically or analytically. Education is the essential foundation of any other profession. Being a teacher myself does not expose my personal bias. The fact is, to be a doctor, one needs to be educated extensively. To be a computer programmer, one needs an advanced education. To be a university professor, one needs 4 to 7 years past their bachelors degree. To have sufficient knowledge in an area of emphasis, people must educate themselves thoroughly in order to do the best job possible.

Politicians, however, do not seem to follow this trend. Take for example the Texas Governor Rick Perry, a former front runner for the Republican 2012 presidential race.

According to The Huffington Post, "he rarely earned anything above a C in his courses — earning a C in US history... And a D in the principles of economics."

How can anyone seriously consider a presidential candidate who does not understand US history or economics? I can speculate on his views on education reform.



TEXAS GOV. RICK PERRY

Access to transcripts of politicians raises a very interesting question. Were any former presidents qualified for their position?

George W. Bush: President of the United States from 2001 to 2009, and the 46th Governor of Texas from 1995 to 2000

Former President Bush may have graduated from Harvard, but with a business degree. He then worked in the oil business.

How does a business degree grant someone the knowledge for increasing the agricultural yield? How does it teach a person how to solve ecological extinctions?

Does a business degree make a person an expert on world history or international diplomacy? Certainly not.

A business degree enables a person to make a living by engaging in commerce. It does not, in any way, train a person to make decisions for an entire nation.

GEORGE W. BUSH

Pres. Barack Obama is often thought to be one of the most educated presidents in a long time. He graduated from Harvard Law school. How does being a lawyer help a person to understand how to increase the production of food faster, without exhausting the soil, so that more people can be fed? How does it help one to understand how to prevent war? Does a law degree train a person to be an expert on dealing with issues surrounding sociology?

A law degree only gives the person the knowledge of two things: how to circumvent the law for another's benefit and how to interpret current laws and punish violators. It has nothing to do with dealing with the core of the problems which cause crime in the first place.

BARAK OBAMA

Current President of the United States

Mitt Romney also graduated from Harvard with a masters degree in business. He then studied law. Again, how does a business degree or a law degree help a person make an automobile which cannot crash into another, saving countless lives and preventing the need for repairing damaged vehicles? How does it make a president know how to make highways safer?

A business degree is only concerned with making money. It certainly does not concern its holder with how to minimize planned obsolescence or prevent the need for making continued purchases due to malfunction, poor design, or safety problems. In fact, making money often depends on ignoring these factors.

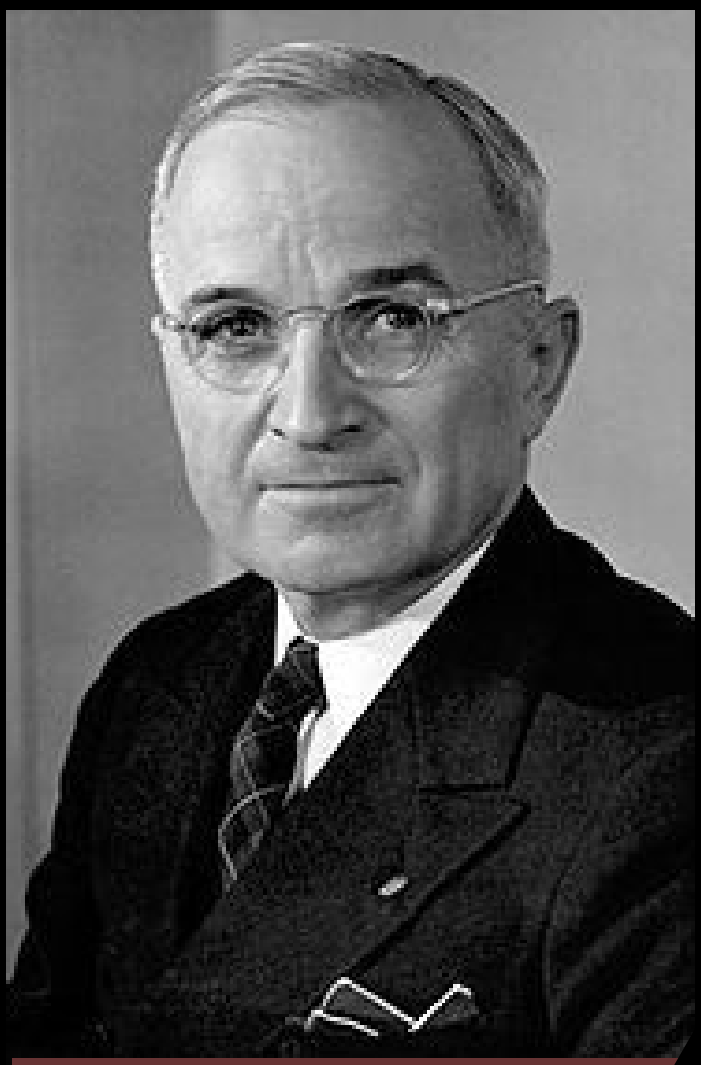
MITT ROMNEY

70th Governor of Massachusetts from 2003 to 2007

Looking back in the past, President Truman used to be a hat salesman. Surely this doesn't need to be explained further.

President Reagan was an actor. Oddly enough, having acting skills and being able to get in character probably makes Reagan the most qualified president the US has ever had, but not for his actions as commander-in-chief. The fact is, no politician or president has ever been fit for the position and never will be.

As long as people are educated the way the system wishes them to be, we will see the continuation of ignorant politicians — who lack any kind of understanding for how to do so effectively – being appointed to serve on the behalf of the people. In effect, presidents are little more than glorified motivational speakers.



HARRY S. TRUMAN

RONALD REAGAN

So if all former presidents (and politicians) were incompetent and unfit for their positions, how is it that they were even considered in the running for the presidential race? The answer is always money.

A 1976 United States Supreme Court decision called Buckley V. Valeo decided that it is legal for a candidate to use unlimited personal funds for their campaign. It was argued that spending money was considered a protected right and was equated to be free-speech. This successfully enabled wealthy candidates to have an advantage over others and, therefore, granted them more influence and a favored ability to receive the privilege of running for public office. In 2010, the United States Supreme Court granted corporations the right to finance a candidate's campaign with unlimited funds and once again equated the spending of money to be a protection of free-speech (source).

These decisions effectively ensured that only those with a large cash flow or those with corporate friends could be considered for public office. It also means a wealthy candidate can drown their opposition in the media by paying for campaign advertising.

As a result, political nominations, or who gets to run for president, are already pre-decided. The public feels empowered with a false sense of pride by casting their vote for opposing parties, but fails to realize that they truly are being given an illusion of choice.

The illusion is that if one candidate is elected over another, it will actually make a difference. The truth is, voters have a choice between two preselected wealthy candidates of the elite class who have their campaigns financed and supported by the wealthiest corporations on the planet. This is why candidates who are lower middle-class have not received a presidential nomination or adequate support in any of the elections since 1877.

The mere perception that people have a choice enables this corrupt enterprise to continue and serves as an aid to Big Business, Wall Street, and the Bankers. It also ensures that the corporations and invested elite will be well cared for by any politician who is elected.

Needless to say, this is the reason why the environment, ecological life, poverty, hunger, scarcity, and other man-made problems are left unsolved, ignored, and are passed off as utopian ideals whenever they are confronted with reform. Those in power have money and control over the release of information and continually sabotage education. As George Orwell said, "A hierarchical society [is] only possible on the basis of poverty and ignorance."

****I am not counting William McKinley (1897-1901) or Harry Truman (1945-1953). McKinley had his friends bail him out of bankruptcy and Truman only inherited the presidency when FDR died. Truman would never have had the funds to run on his own. Truman did win his reelection, but having already served as president and given that America had won the war, this offered him a major advantage over his opposition.*

From the FREE book "The Lens of Truth: Greed, the Media, and We" @www.colinculbreth.com

WHO WILL MAKE THE DECISIONS?

FROM THE BEST THAT MONEY CAN'T BUY, CHAPTER 10

by Jacque Fresco

THROUGHOUT HISTORY, the societal decision-making process has gone through a number of changes. At one time, primitive tribes and their ruling chieftains and kings decided upon a set of laws, beliefs and mores, designed to support and defend the ruling oligarchies.

As primitive cultures joined together, possibly for mutual protection, the chieftains of the various tribes shared some decision-making. With the advent of nations, councils were appointed to participate in decision-making, to prevent any one of the leaders from dominating.

The less privileged were not included in this process. As the ruling classes imposed greater hardships on their subjects through taxation and other abuses of power, uprisings, sabotage, and assassinations by the oppressed people forced changes in the laws of the land. Governing bodies were then appointed to carry out and uphold laws.

Although wealth has always "bought" political office, it was at the beginning of the nineteenth century that financial interests began in earnest to play the leading role in inappropriate decision-making.

Politicians use every means of deception to consolidate their positions, repeating slogans used for centuries such as, "a return to family values," "to serve God and country," and other verbal expressions of undefined goals. They talk around every issue without saying anything of substance, placing emphasis on the role of law and order in government and on international agreements.

They enact new laws to control behavior, and if these don't work, they resort to force, boycotts, and blockades. But none of these methods ever address the root cause.

Most people believe that to set things right, all we need is to replace incompetent and corrupt officials in government with decent men and women of high moral character. Although we occasionally find politicians of sincere intent, they seldom find usable answers to problems.

Human systems fail, obviously, to serve the needs of humanity. This is true across the entire spectrum of human administration: the church, the government, the military, and the banks. In the past, most social designs were unsuccessful for the majority, because their designers were unable to transcend the limits of their own environmental conditioning. We tend to bring our past into the present and project it into the future.
Today, the laws that govern society are not based on truly comprehensive and scientific studies. They are based on opinions and traditional practices. For example, our approach to dealing with an increase in crime is to build more prisons, rather than alter the conditions responsible for socially offensive behavior in the first place.

At one point, a discussion with criminologists pointed out that if our crime rate had continued at its current level, more than half the U.S. population would be in prison by the year 2010 and the other half may well have to guard them.

Of course, today, the definition of a criminal is one who gets caught and we're seeing more and more crime being committed at the supposed highest levels of society, including bankers, politicians and even clergy.

Rather than depend on a failed system of punishment or incarceration after the damage has been done, a more effective approach to solving our problems would be to shift our attention to the scourges of poverty, malnutrition, poor role models, violence in the media, and stresses in family life. We need to make an effort to teach people how to resolve conflict without the use of physical force.

The discovery of scientific principles enables us to validate and test many proposals. If someone claims that a particular structural element can support a specific number of pounds per square inch, the claim can be tested and either substantiated or negated based upon the test results. It is precisely this process of testing which enables us to design and construct bridges, buildings, ships, aircraft, and all other mechanical wonders.

In the new social design outlined in this book, scientific and analytical principles can be applied, not only to industry and construction, but also to the personal and human components of society.

This may lead to the allocation and application of more scientific resources to the study of human behavior. The most difficult aspect of redesigning a culture is that the approach seems undemocratic. By what authority does any group affect a new arrangement of social affairs on those living in the current arrangement?

THIS BRINGS UP THREE QUESTIONS OF PRIMARY IMPORTANCE TO THE REDESIGN OF A CULTURE:

1. FOR WHOM IS THE CULTURE DESIGNED?
2. WHAT ENDS ARE TO BE SERVED?
3. WHO WILL BENEFIT, EVERYONE OR A FEW?

Throughout history, social affairs have either been pre-arranged, or have eventually worked out to benefit a power elite and money interests. Even in so-called democracies, this has been the case. People fear a planned social system may not serve their interests. They perceive a danger that the introduction of any new social arrangement carries with it the possibility of the development of a new elite.

If a particular religious group were to design a society, it would quite naturally reflect the group's beliefs, which would be seen as the will of the people. The majority of this group would democratically agree that theirs is a good social design. The atheist, agnostic, Hindu, Muslim, and others not represented would naturally object. What is needed is a way to determine the most appropriate direction that will be agreeable to all. As difficult as this may appear, it can be done. Today, we have a decentralized system of decision-making, and decision-makers are seldom aware of problems in regions outside their immediate vicinity. Those in sub-tropical Florida have difficulty understanding water rights in Arizona. A Berger of Morocco would be challenged if asked to design a health plan that matched the lifestyles of people in Norway. Each of us must participate, and we need verifiable and current information in order to draw up plans.

When computers have their electrical sensors extended into all areas of the social complex, we will be able to return to successful centralized decision-making. In a global resource-based economy, decisions would not be based on local politics, but on a holistic problem solving approach. Earth and the life on it must be seen as constituting a single system.

This centralized whole system could be connected to research labs and universities, so that all data is monitored and updated constantly. Most of the technology to allow such infrastructure management is currently available.

For example, when electrical sensors are extended into the agricultural region, computerized systems could manage and control the agricultural requirements, by monitoring the water table, insects, plant diseases, soil nutrients, and so forth. Computers and artificial intelligence will be a catalyst for change. They will establish scientific scales of performance. It is doubtful that, in the latter part of the twenty-first century, people will play any significant role in decision-making.

Eventually, the installation of AI and machine decision-making will manage all resources and serve the common good.

Computers as decision-makers will also scan for new information and methods of conserving resources to accommodate the carrying capacity of each geographical region. This will result in a more humane and meaningful approach for shaping tomorrow's civilization, one not based on the opinions or desires of a particular sect or individual.

In the event of a regional or national emergency, special information and already-developed plans for known types of catastrophes would be available, just as military contingency plans are today.

Decisions would be made on the basis of a comprehensive resource survey and the availability of energy or existing technology, as opposed to the advantage to be gained by any nation or select group of people. This resource survey would determine the carrying capacity of each geographical region of the global environment.

FAQ

with Jacque Fresco and Roxanne Meadows

I NOTICED A CERTAIN NEARNESS BETWEEN YOUR THINKING AND THE FRENCH ARCHITECT LE DOUX ABOUT THE CONCEPT OF IDEAL CITY: DO YOU BELIEVE THAT THE EIGHTEENTH CENTURY IDEA OF IDEAL CITY COULD APPLY ALSO TO A FUTURE CITY?

There are no ideal cities any more than there is an ideal television set. The future requires flexibility and a capacity for change and an adaptation to newer concepts and technologies without any utopian notion of final development. I believe future generations will evolve their own social arrangements. I do not believe in any final frontiers, and the future will continue to undergo changes based upon successive phases of social development.

Being civilized is an ongoing process and not attainable. The same is true for intelligence. An intelligent electrical engineer of 75 years ago could not get a job today. He would be educated in antiquated terms that evolved from earlier times.

MANY OF YOUR DESIGNS SEEM TO REFLECT RETRO-MOD TRENDS. WHAT WAS YOUR THINKING BEHIND THE SHAPES AND THE BLACK/WHITE FAÇADES OF THE STRUCTURES?

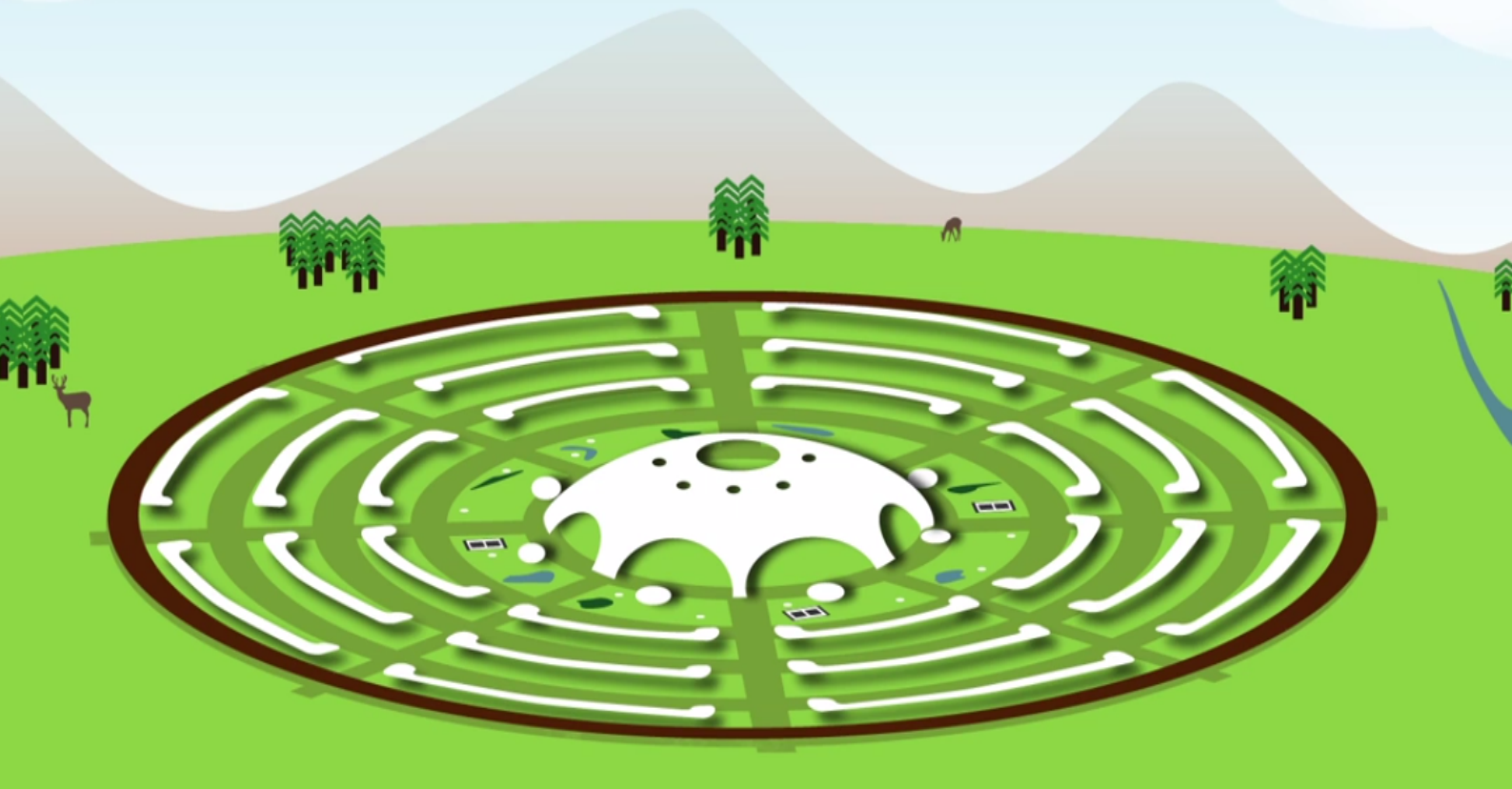
Most of the designs of the city systems, industries, transportation and associated industrial requirement such as automation and cybernetics are based upon the physical carrying capacity of Earth and its population. The design parameters are extracted from the physical equipment that exists along with today's technology and personnel.


Thompson

AA WORLD

AA World : Automated - Autonomous World is a series of articles about the current state of Automated and Autonomous technology to try to demonstrate how The Venus Project concepts can be feasible even with today's technology.

by Tio



If you are familiar with The Venus Project then you have heard the word "automation" many times. You already know that The Venus Project´s technology relies heavily on automated and autonomous systems to properly work. But how far can such technologies go today? Can we design complex production/delivery systems to be fully automated and autonomous (AA)? What about transportation, security, and research? Can these fields rely on such systems?

In this series of articles, I will try to show you what AA can do today and what they may do in the near future.

What is automation ?

" Automation or automatic control, is the use of various control systems for operating equipment such as machinery, processes in factories, boilers and heat treating ovens, switching in telephone networks, steering and stabilization of ships or aircraft and other applications with minimal or reduced human intervention.

The biggest benefit of automation is that it saves labor, however, it is also used to save energy and materials and to improve quality, accuracy and precision.

Automation has been achieved by various means including mechanical, hydraulic, pneumatic, electrical, electronic and computers, usually in combination. Complicated systems, such as modern factories, airplanes and ships typically use all these combined techniques. " - Wikipedia

What is autonomous technology ?

Autonomous technology refers to machines that act independently of humans.They behave in ways that mimic humans and free people from repetitive, unstimulating jobs.

Most advanced aircraft are almost entirely autonomous, in the sense that they can take off, fly, obey air traffic control, avoid other aircraft, and land, all without human intervention, except in plotting a destination.

So for this article think about automated technology as machines that function with little, if any, human control.

CITIES AND THE ENVIRONMENT

But before we continue, you have to understand that today´s AA technologies are engulfed in the monetary system and not fully expressed. For the sake of demonstration, let´s say someone wanted to build an automated restaurant, although possible from a technical perspective, its development and deployment would be limited by the financial system. That is why you probably don't see many AA restaurants today. It is because of the impediments in our social system, not technological limitations. The technologies you will find below, however, are considered not for their financial worth, but rather for their technical worth.

Cities are just complex villages - clusters of people with a bunch of 'stuff' around them. In our case, the 'stuff' is mostly technology that allows for comfort, knowledge, research, and more.

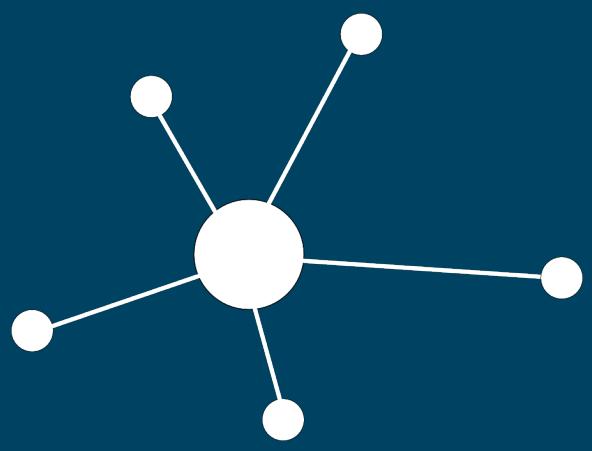
A city may be thought of as a 'total enclosure system' - a self sustainable community, somewhat similar to a cruise ship, that can provide all the needs and wants of the occupants, independent of the other cruise ships or any external reliance.

The clusters of people + technology that we call cities can be very different from one another, from their functionality to their local environment. A city can be round, or perhaps more square, depending of what its functionality will be. For instance, when it comes to access, it is much better to build a circular city with the important facilities in the center, so that access to them is easier. However if you build a city in very hot, dry areas, you may opt for a different shape to better circulate the wind through the city and cool it down. The same goes for locations, as a city in the sea may be very differently built than a city in an area with high hills. The size of cities is also dependent on these factors.

Land, water, and even space are locations where humans can create cities. While space is a recently explored environment and it may take many years of technological development to create cities there, land and water are already environments that humans have the knowledge to control and, thus, the ability to create complex cities in such areas.

However, saying that you want to build a city on land does not say very much, since there are so many factors that can substantially change a city plan: climate, soil, landscape, elevation, etc.. This is why it is impossible to imagine such cities without knowing a great detail about their position on planet Earth. Each city is unique.

SINCE EACH CITY CAN BE VERY DIFFERENT FROM ANOTHER, MAKING IT IRRELEVANT TO CATEGORIZE THEM BY 'TYPES', I WILL TRY TO HIGHLIGHT KEY COMPONENTS OF ANY CITY, SUCH AS:



DNS

DIGITAL NERVOUS SYSTEM

TES

TOTAL ENCLOSURE SYSTEM

CDL

COLONIZING DIFFERENT LANDSCAPES

If you have been following the AA WORLD series of articles, you may have noticed that from construction to transportation, production to delivery, and even the 'home', all can become fully automated and autonomous, while the interface between these technologies and humans can be made very intuitive. We have also discussed ways of making education decentralized and how schools as we think of them today may not be needed in the future, along with how we will create and deal with abundance.

Since there won't be nearly as many special places in these future cities like we see today - offices, police stations, banks, petrol/gas stations, so many parking lots, town halls and others - cities of the future might serve many other purposes, as I will try to describe in this article.

Therefore, when it comes to cities, you have to incorporate the other AA World articles to be able to visualize a more complete picture of how the cities might look in the future. Once this series ends, we will release a special TVP Magazine issue containing all of them.

A smart city needs to sense and react to ever-changing conditions.

In order for this kind of systems approach to work properly, there are 3 key components:

- *Sensors*
- *High Connectivity and Massive Data Storage*
- *Computational Power for Arriving at Decisions*

SENSORS

To sense, the city has to have sensors in key points to record localized temperatures, production flows, air quality, water consumption, analyze bridges and other constructions, and so on.

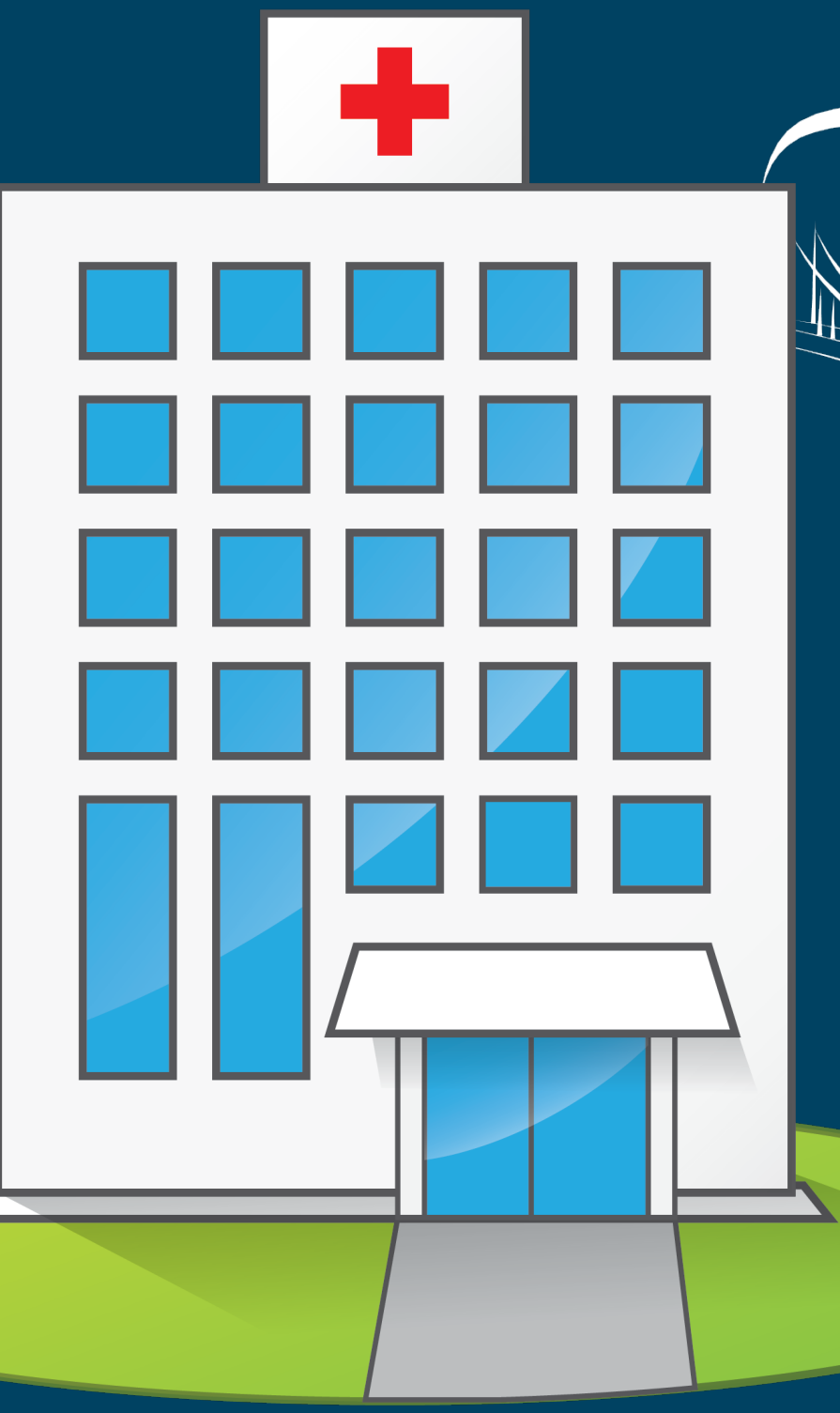
This mash of sensors, connections and the interpretation of them by software is called 'the internet of things' today, and is something we are experiencing more and more. What this means is that the gadgets, electronics, pipes, walls, full houses and buildings, and almost all of the physical objects around us are gaining digital awareness.

For instance, a system of water pipes with simple flow sensors and pressure valves to control the flow becomes far more intelligent once they are digitized, the data is uploaded into the cloud (the internet) and it is interpreted by smart software that then communicates with and manages the valves and sensors autonomously.

Thus, by monitoring the water consumption of a city, we can program the pipes to adjust the water flow to minimize water waste. This way we can automate a huge network of pipes in a very simple way. This is just one example of why digitizing these objects/things will make a city intelligent and responsive.

Imagine bridges that communicate with the traffic flow, or entire transportation systems that can do that. Then consider food production lines that are able to 'understand' what it is needed and where it is needed.

In the words of IBM: "***Hospitals can monitor and regulate pacemakers long distance, factories can automatically address production line issues and hotels can adjust temperature and lighting according to a guest's preferences***".

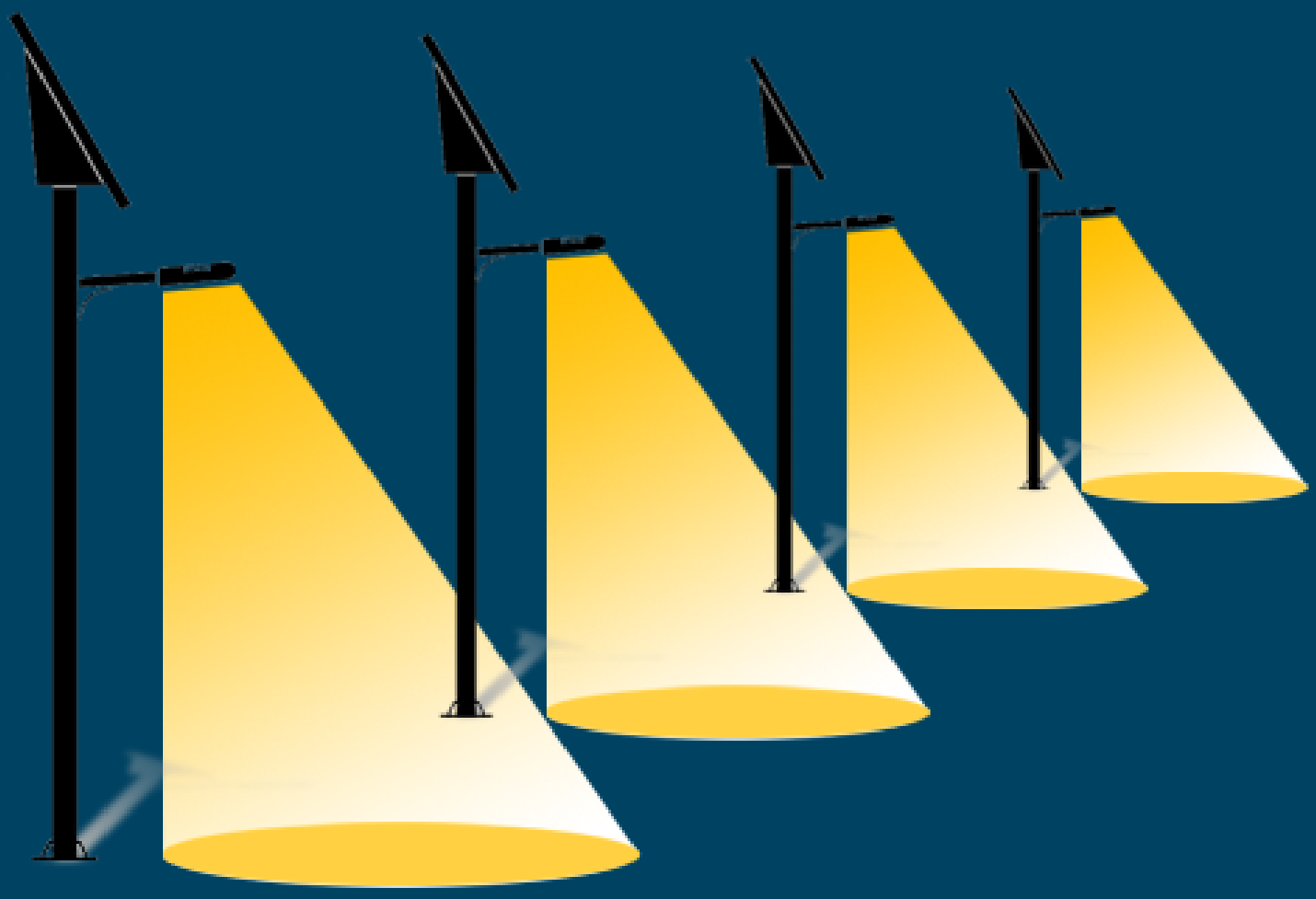


THE POSSIBILITIES SEEM TO BE LIMITED ONLY BY OUR IMAGINATION.

Let's look at some present day examples to highlight more exactly how this technology works, and what it is already possible today.

In Amsterdam, engineers are working to deploy a smart system of public lighting by 2018 by connecting energy efficient LEDs with each other and a smart network that can not only save energy, but be smart enough to light the streets or other public places exactly when needed and as much as needed, and also automatically report failures.

Considering that roughly 19% of all electricity use goes to lighting, an independent, global trial of LED technology in 12 of the world's largest cities found that LEDs can generate energy savings of 50 to 70 percent — with savings reaching 80 percent when LED lighting is coupled with smart controls. (source)



City24/7 created smart screens that they place in key points of a city, such as bus stops, train stations, major entryways, etc., that display relevant information about that particular location.

These smart screens have a dedicated emergency communication networking, battery backup, ruggedized structure (ATM strength), high-speed network access, various sensors such as chemical, bio-hazard, environmental; powerful processing; can direct people in area (what to do, where to go), monitor conditions remotely, and more.

It is basically a highly durable box (screen) that sense the environment and is smart enough to be extremely helpful for the inhabitants of a city.

Cisco, an important name when it comes to the internet of things idea, is collaborating with many cities to make them smarter. One example is Barcelona, where they underlay a plan to transform it by 2020 into a smart city by deploying sensors in various parts of the city and making sense of them through smart computer programs. The sectors of improvements include: transportation, real estate, safety and security, utilities, learning, health, sports and entertainment, and government. (source)

Although there will be no government or real estate in the Venus Project and the notion of 'security' may change a lot, we should stress here that the technologies presented in the AA WORLD series are strictly for their technological capabilities and not intended to present or argue any societal implementations.

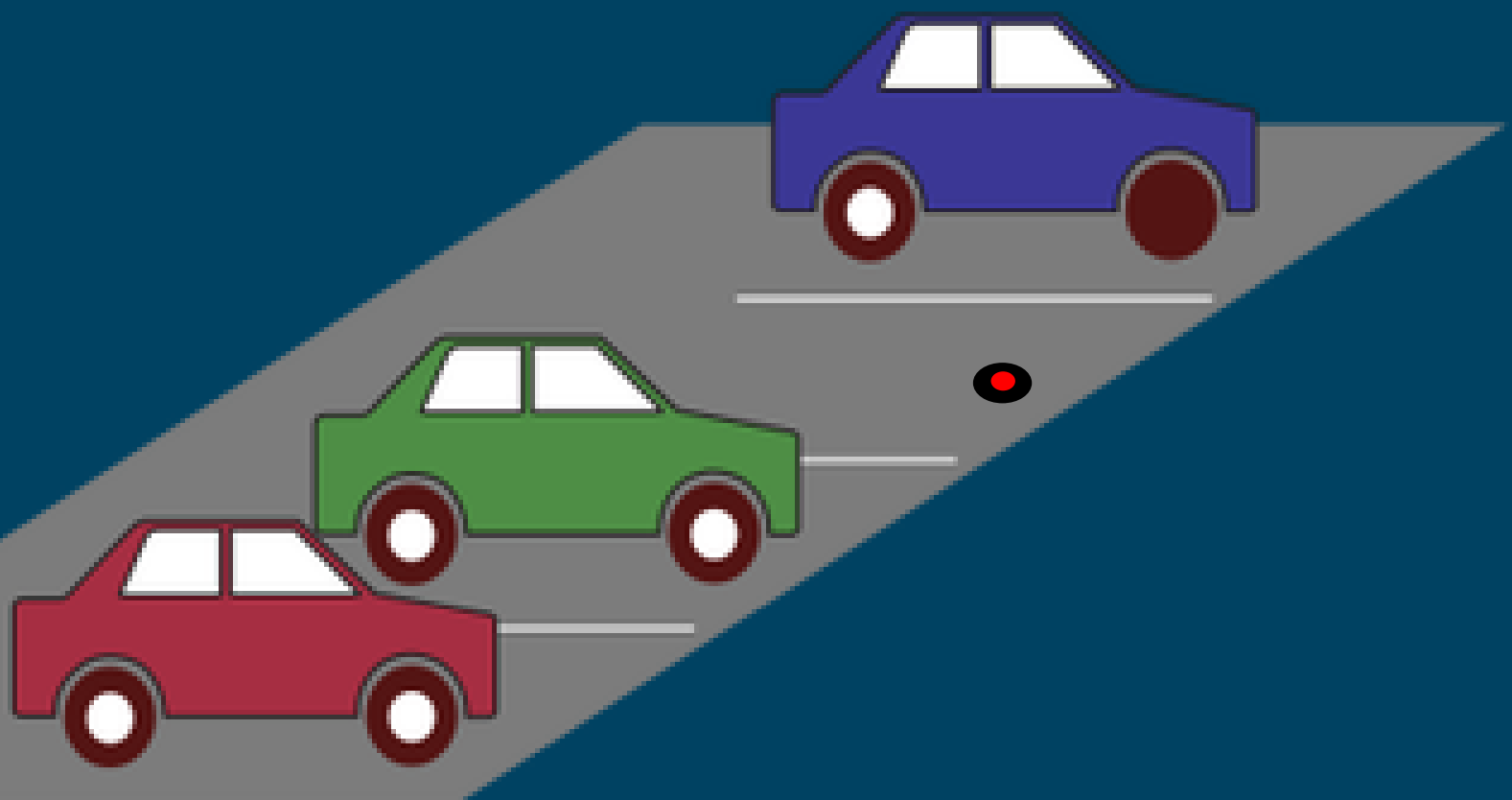
Barcelona has already implemented smart parking, smart bus stations, and they even have smart garbage cans. Sensors inside these garbage cans can detect if the garbage is full and/or is emitting bad odors, and then direct garbage trucks to empty only those that need it. This is much more efficient than picking garbage cans one after another, with some of them empty or hardly used.

The parking lots in Barcelona have light and metal detectors to detect empty parking spots and direct people to those spots via an app. (source)

Also, a city-wide network of sensors provides valuable real-time information on the flow of citizens, noise and other forms of environmental pollution, as well as traffic and weather conditions. (source)

THIS IS A VIDEO SHOWCASING THE BARCELONA SMART CITY PROJECT:

CONTROLLING A CITY SEEMS TO BE AS EASY AS CONTROLLING A GAME, AS THIS CISCO DEMO VIDEO



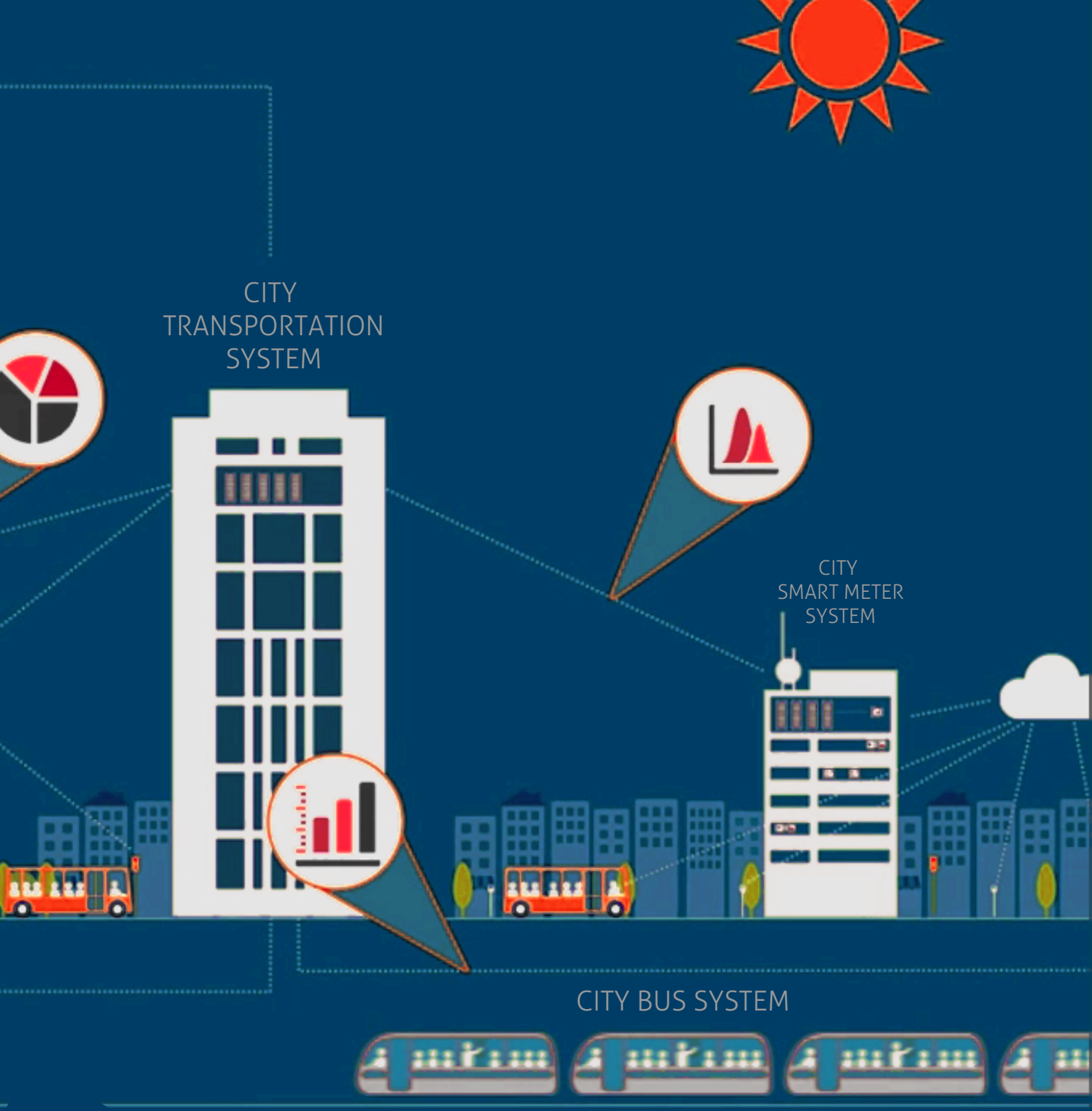
CITY AIRPORT SYSTEM

BIG POSSIBILITIES COME FROM ANALYZING THE DATA ACROSS THE SYSTEMS

CITY
TRAFFIC CAMERA
SYSTEM

CITY SUBWAY SYSTEM

INTEL: INTERNET OF THINGS

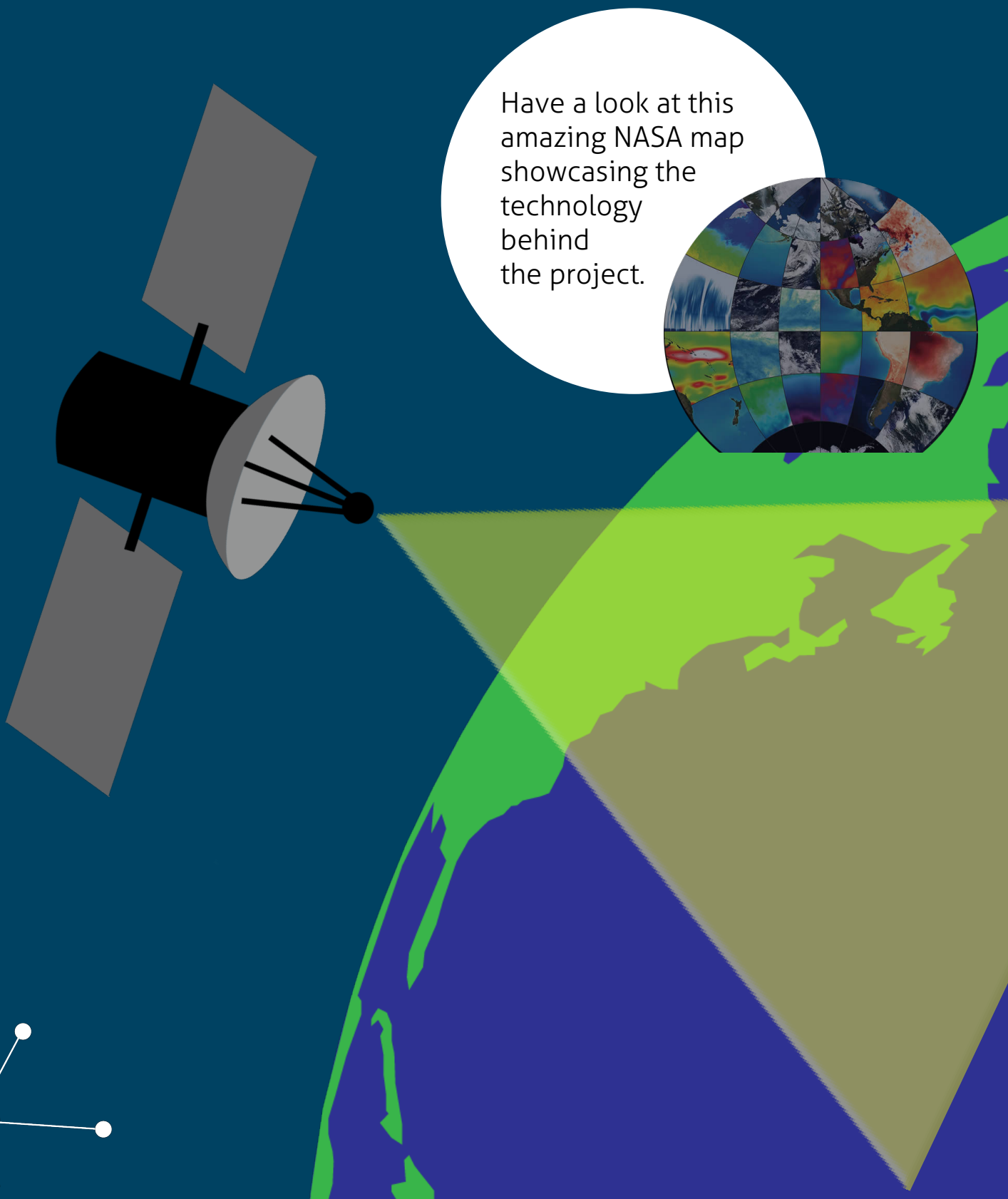


HP CeNSE is another example of this idea of 'sensing' the environment. CeNSE consists of a highly intelligent network of billions of nanoscale sensors designed to feel, taste, smell, see, and hear what is going on in the world.

These sensors can analyze earthquakes, "smell" a gas leak, sense wear and tear on a bridge, track the spread of the next flu virus, and more.

However, it is not only about putting sensors in cars, roads, buildings, and so on; it is also about putting sensors into the soil, atmosphere, space, etc., thus 'sensing' all of nature to better manage the natural resources, predict the weather and more.

NASA has been doing this for quite a while, analyzing global waters, clouds, wind, precipitations, temperatures, land and sea elevations, vegetation and a bunch more. The system allows for better prediction of hurricanes, tsunamis, floods, etc..



THIS VIDEO HIGHLIGHTS NEAR-FUTURE IMPROVEMENTS OF THE CURRENT SATELLITE SYSTEM

NASA'S FUTURE PLANS INCLUDE THE EXPANSION OF THIS CLUSTER OF SATELLITES, MAKING THEM INCREASINGLY AUTONOMOUS. THEY ALSO PLAN ON ADDING FLOCKS OF DRONES, SURVEYING THE WEATHER FROM INSIDE THE EARTH'S ATMOSPHERE.

Such complex arrays of sensors can monitor Earth and its resources from inside Earth, on ground level, in the atmosphere and from space. That, combined with sensors in traffic, buildings, and objects will make our environment very sensitive. Yet, there is one more approach that will make Earth extremely sensitive and intelligent: the human network.

You see, putting sensors in key points within cities and around the planet may be quite a challenge and can cover much of our needs, but looking at people as 'sensor carriers' changes this picture a lot. Billions of people are already carrying around a device (smartphone) that has become much more than a phone and, in some situations, even smarter than a computer.

These smartphones can include multiple sensors to detect pollution, location, movement and orientation, atmospheric pressure, temperature, etc.. Many of them already host light sensors, humidity sensors, and a bunch more. (source)

Since humans travel all around the world and inhabit places from Africa's deserts to Alaska, they can become dynamic sensors that help map the world.

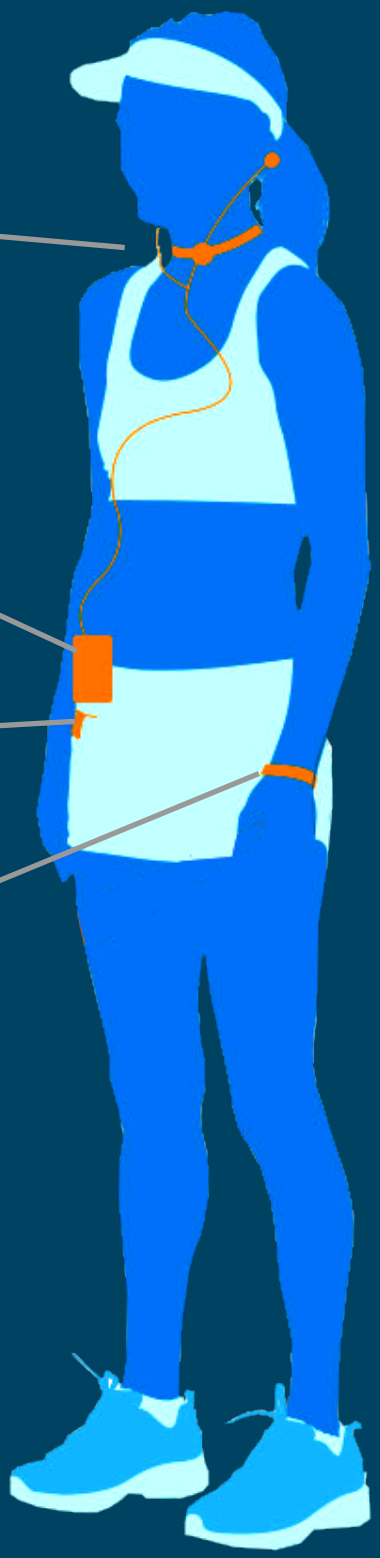
Then consider how all of that, combined with sensors inside the human body that can monitor one's health, would create a highly detailed map of our world that can detect and track virus outbreaks & treatment resistance, better understand disease propensities and much more.

NECKLACE
MISFIT SHINE

CELLPHONE
MOVES
LOSE IT!
DRINKCONTROL
SLEEP CYCLE

POCKET CLIP
FITBIT ONE

WRIST
NIKE + FUELBAND
FITBIT FLEX
JAWBONE UP



Sensing the world around and inside us is something that is already happening on a planetary scale. Billions, perhaps trillions of sensors are already functioning to track almost every aspect of the Earth, including people's health, climate, buildings, and pretty much everything else.

The interesting fact is that, once these objects, buildings, and resources are connected with each other and connected together via smart networks, a huge amount of fine tuning and smart automation can be done.

IBM, Intel and many cities are already adopting this idea of connecting physical objects to the internet, digitizing them, and transforming cities into 'living organisms' that can sense and respond.

This is a proof that the idea of connecting objects with each other through smart networks is not only feasible, but very efficient.

HIGH CONNECTIVITY AND MASSIVE DATA STORAGE:

To be able to cope with this huge influx of data (information), we need super high-speed connections. The fastest 'wired' broadband connection achieved up to now is 1.4 terabits per second. (source)

AT THAT SPEED, WE COULD DOWNLOAD 44 HD MOVIES IN ONE SECOND.

When it comes to wireless connectivity, "The South Korean government announced a new initiative to introduce a next-generation 5G wireless connection within six years." (source)

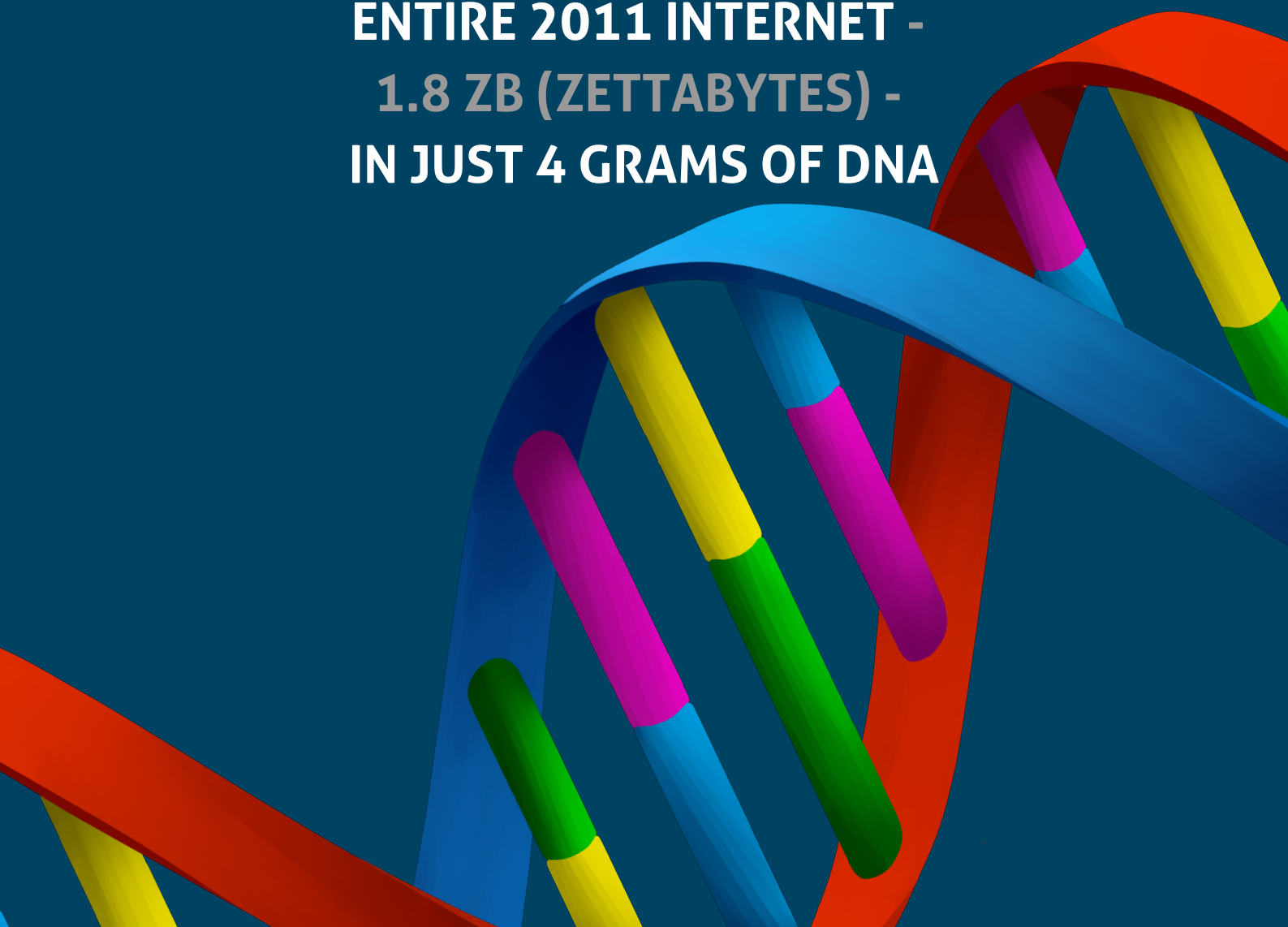
THE NEW MOBILE STANDARD WOULD OFFER CONNECTIONS AROUND 1,000 TIMES FASTER THAN CURRENT 4G SERVICES

These speeds are impressive and the amount of data collected will grow bigger and bigger as we connect more devices and sensors to the system. Perhaps a new type of data storage will be required.

The current best hard drive storage capabilities store a 'bit' of data (the smallest unit) using 1 million atoms. IBM has since proved that one bit of data can be stored in just 12 atoms. That increase in storage density is huge. (source)

Now imagine storing digital data within DNA structures. Harvard's Wyss Institute have successfully stored 5.5 petabits of data — around 700 terabytes — in a single gram of DNA, smashing the previous DNA data density record a thousand fold. This new approach to long-term data storage seems to be completely feasible, efficient and extremely durable. (source)

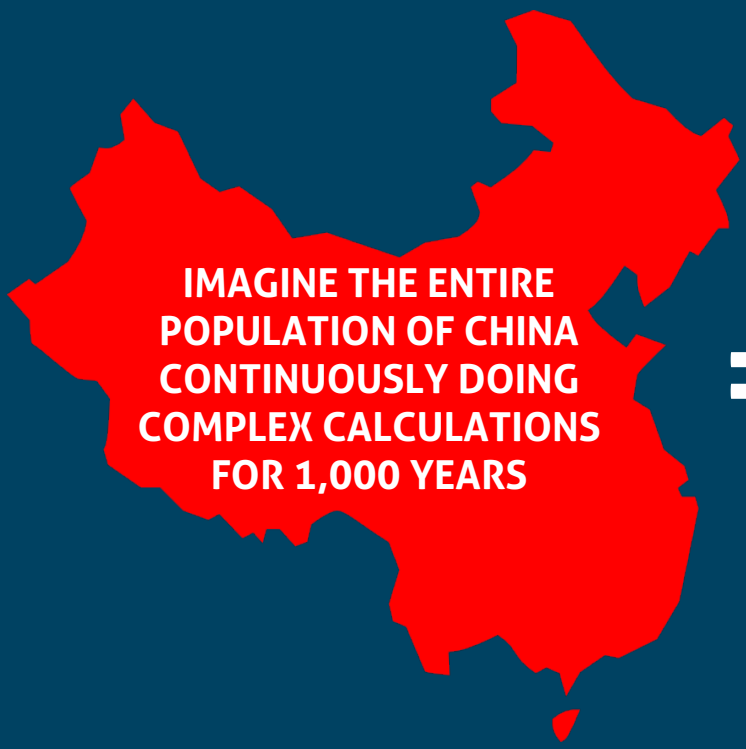
THEORETICALLY, WE COULD STORE A COPY OF THE ENTIRE 2011 INTERNET - 1.8 ZB (ZETTABYTES) - IN JUST 4 GRAMS OF DNA



COMPUTATIONAL POWER FOR ARRIVING AT DECISIONS

Ok, so let's assume that we now have trillions of sensors in and out of planet Earth, analyzing every aspect of it, along with sensors inside our bodies or carrying them with us, while huge amounts of data are being collected from all these sensors. Even if we also assume that we now have massive storage units for all this data, all of this potential is worthless without powerful computers and smart software.

The power of a computer is scaled by the number of calculations per second it can perform. To date, the most powerful one is *Milky Way 2*, which can do around 33 quadrillion calculations per second. That number is a bit difficult to understand, so consider that one hour of this machine's calculations is roughly equivalent to 1,000 years of difficult sums by 1.3 billion people. (source1, 2)



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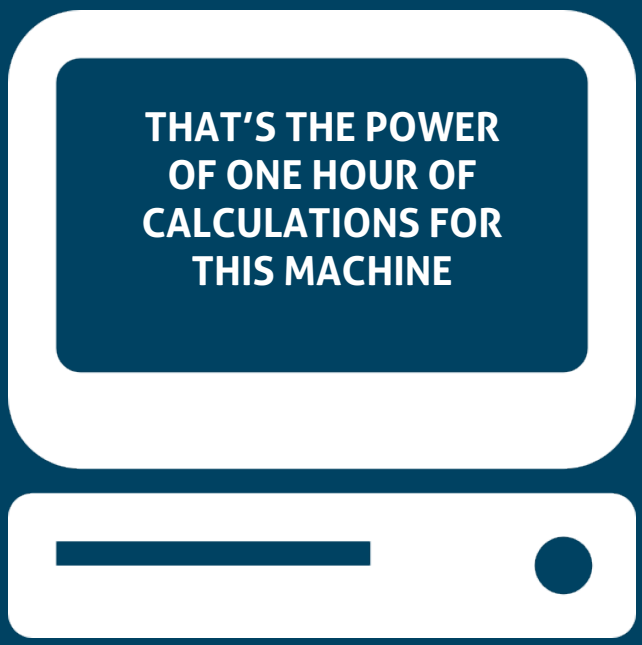
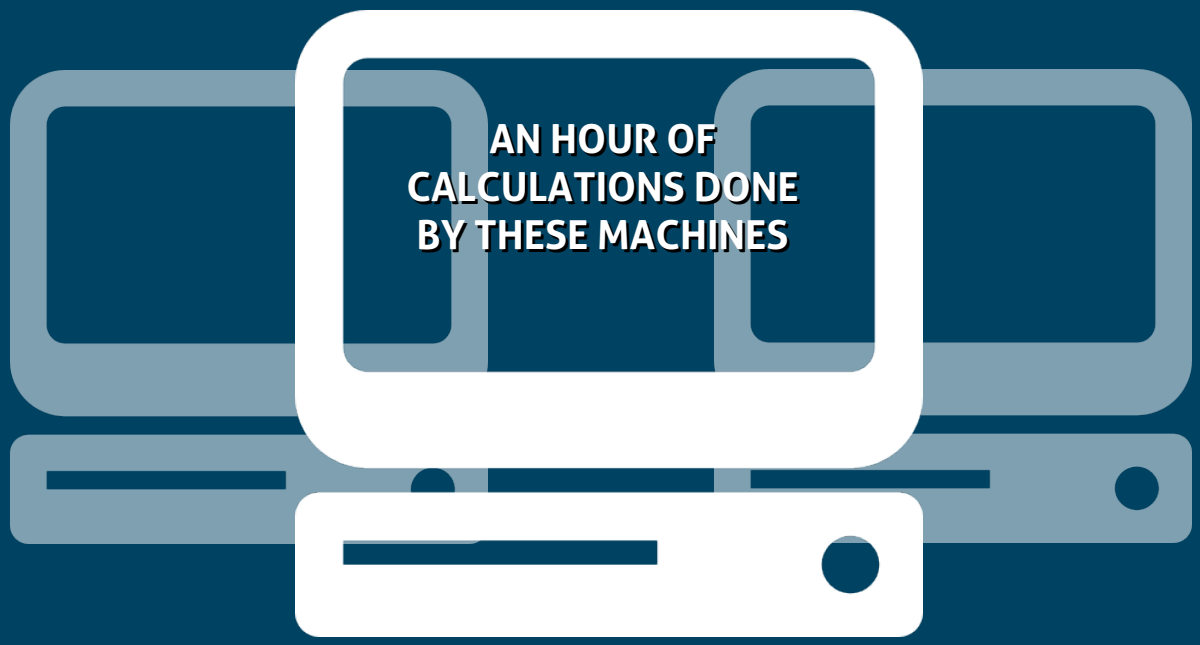


IT IS VERY, VERY IMPRESSIVE!

But the Milky Way 2 supercomputer is just one of hundreds, if not thousands, of supercomputers out there. Imagine the combined power of the top 500, which would be around 250 quadrillion calculations per second.

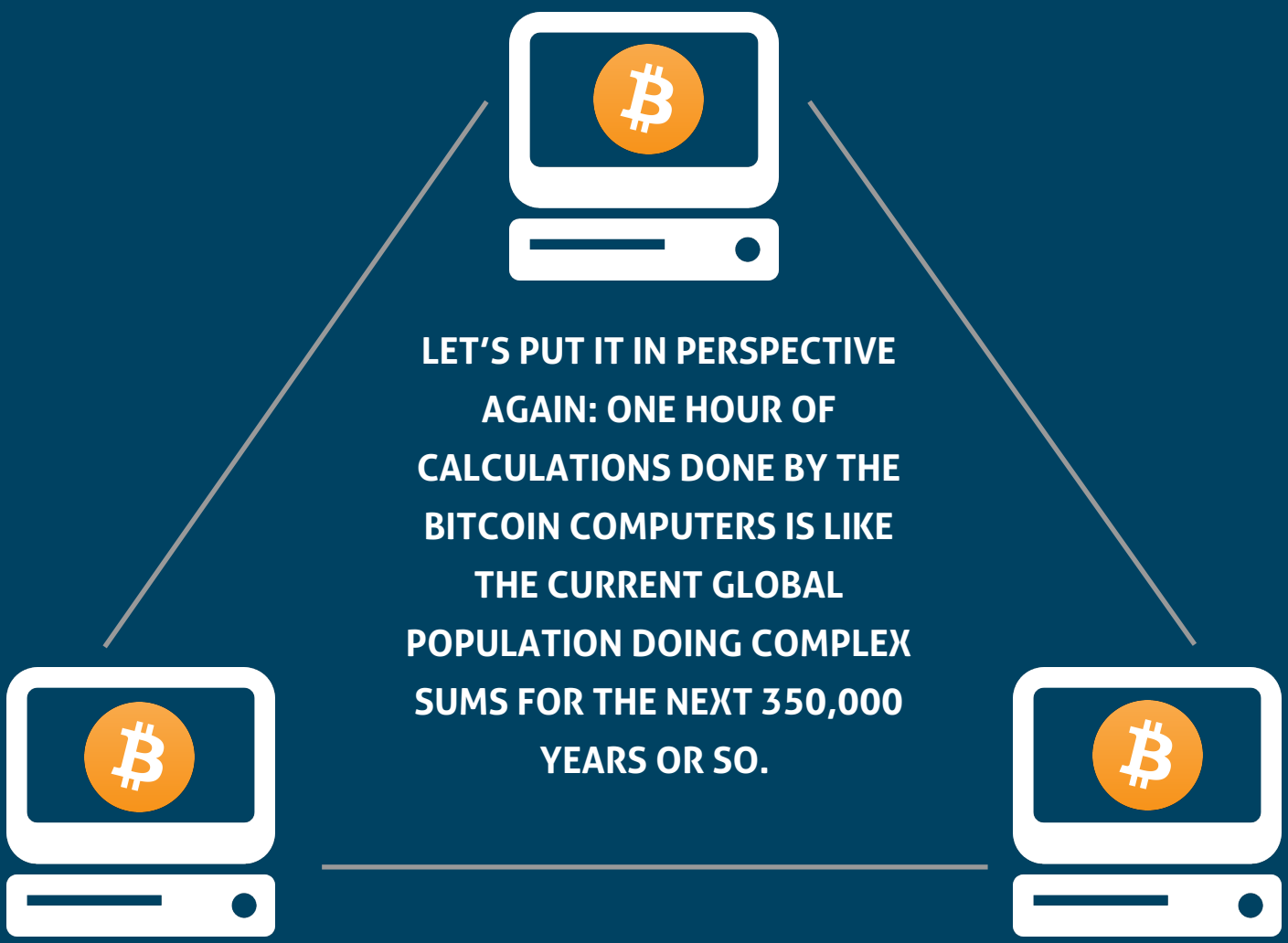


IS ROUGHLY EQUIVALENT TO 1,400 YEARS OF CONTINUOUS INTENSE SUMS DONE BY 7 BILLION PEOPLE (THE ENTIRE WORLD POPULATION),WITH NO BREAKS FOR SLEEP, BATHROOM, EATING, ETC.. IMAGINE THAT.

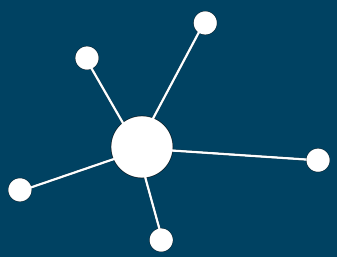
If you are impressed by those numbers, your jaw will likely drop when you will learn the next amazing fact. Bitcoin is a decentralized digital currency (a software-based payment system), with no one in control. To verify and record payments (transactions), users (you, me, everyone with a computer that agrees to help) have put their personal computer's power to work.

Together, people from around the world have created the equivalent of a gigantic supercomputer that is 256 times more powerful than the top 500 supercomputers in the world. What do you think about that? 256 times!

To avoid any confusion here, The Venus Project is not at all advocating 'Bitcoin' or any other monetary exchange replacement. With our current technological abilities, all monetary exchange is now outdated as a way to enable people to acquire goods and services. We are only conveying that our technological capabilities are sufficient so that The Venus Project's approach could enable everyone on the planet to have a high standard of living.



LET'S PUT IT IN PERSPECTIVE AGAIN: ONE HOUR OF CALCULATIONS DONE BY THE BITCOIN COMPUTERS IS LIKE THE CURRENT GLOBAL POPULATION DOING COMPLEX SUMS FOR THE NEXT 350,000 YEARS OR SO.

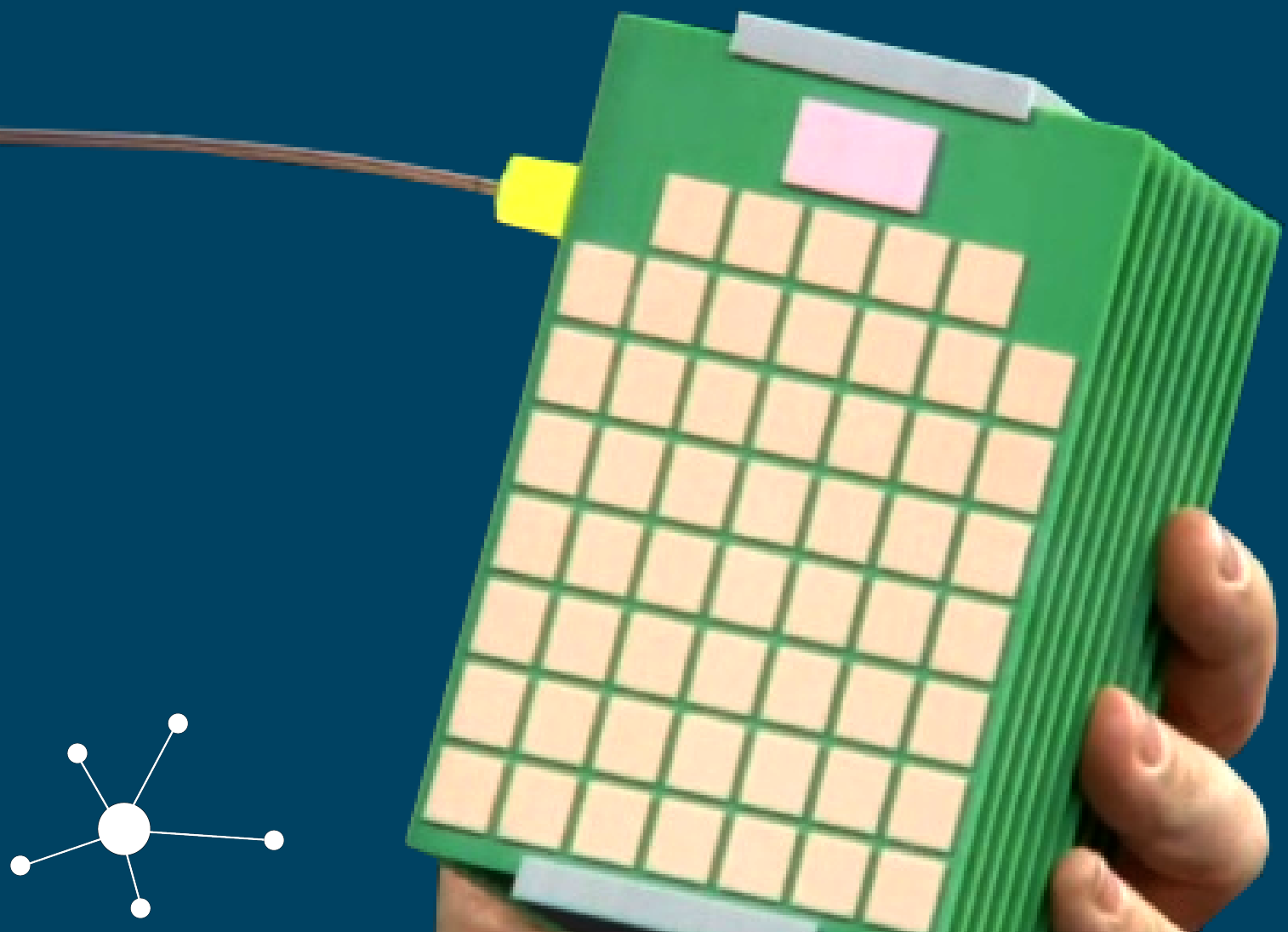


YOU MIGHT ALSO IMAGINE THESE 7+ BILLION PEOPLE STARTING BACK WHEN ARCHAIC HOMO SAPIENS, THE FORERUNNER OF ANATOMICALLY MODERN HUMANS, EVOLVED. ONCE AGAIN, THAT IS JUST TO MATCH ONE HOUR OF THE BITCOIN NETWORK'S COMPUTATIONS.

HP is currently developing a very powerful computer (The Machine) with the 'internet of things' idea in mind. It uses photons instead of electrons, is six times more powerful than existing servers and requires 80 times less energy.

HP claims The Machine is capable of managing 160 petabytes in 250 nanoseconds. They also claim that this computer will be a huge shift in computer systems, able to cope with the huge influx of data coming from what it is called as "the internet of things". (source)

YOU CAN WATCH A HALF HOUR PRESENTATION OF THIS TECHNOLOGY BY HP

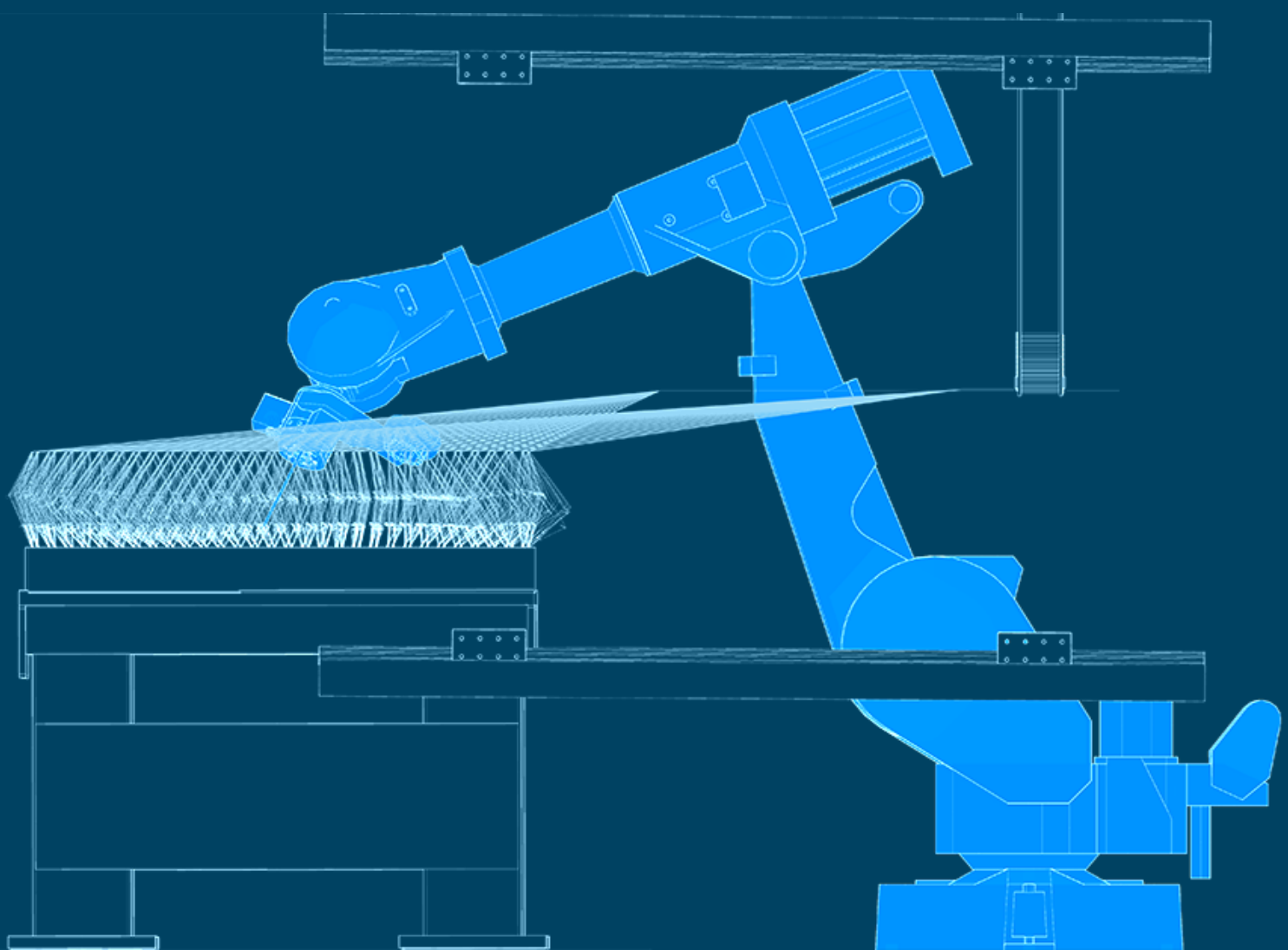


These numbers are impossible to make sense of, but the point is that our present computational power is huge. Many science researchers are using these supercomputers to do a wide variety of investigation.

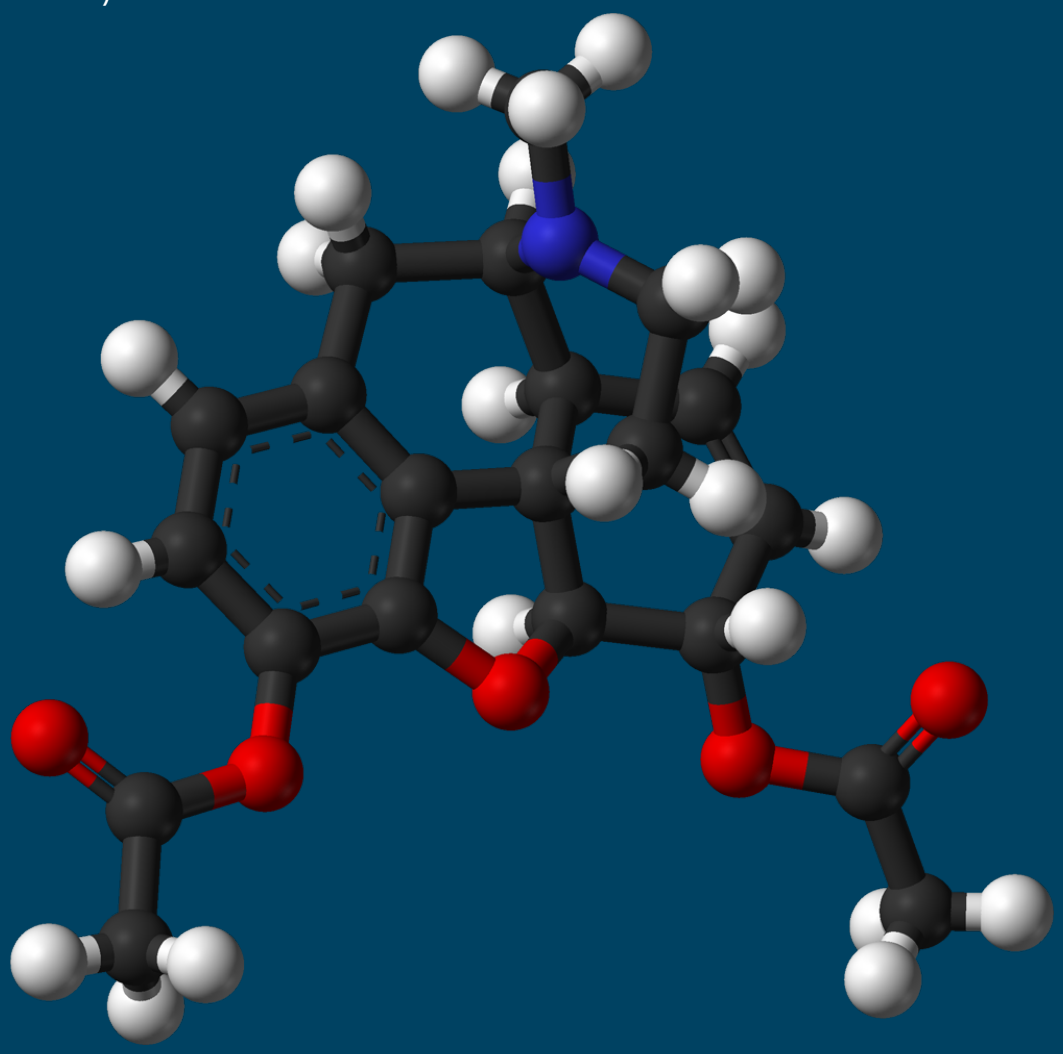
Scientists use supercomputers to explore the chemical properties of materials in physically realistic environments, investigate various processes at the quantum scale, use a combination of experiment and large molecular simulations to understand how, at a molecular level, mutations enable resistance to antibiotics in the causes of, among others, bacterial meningitis; supercomputers are also used for climate modelling research (atmospheric models, ocean models and land models).

Climate researchers are able to run full Earth system models with the additional complexity required in, for example, modelling evaporation from land and the associated plant transpiration.

Supercomputers are also using biomechanical models to understand how dinosaurs moved; simulating the energy production of future fusion reactors; exploring new renewable energy technologies such as dye-sensitised solar cells; and designing quieter, more efficient aeroplanes. (source)



For instance, Tianhe-1A, the second most powerful supercomputer in the world, ran a simulation involving 110 billion atoms through 500,000 time-steps. In every one of these steps, Tianhe-1A has to analyze the relationships between each and every atom. These calculations took three hours to complete and accounted for 0.116 nanoseconds of simulated time — and this is on a computer capable of processing two quadrillion calculations per second. (source)



You can do a google search to see many more uses of supercomputers.

Now think about the various types of research done by distributed computing. As in the case of Bitcoin, this means people donating their personal computer's power to form a network of computers that bring together immense computational power. Here is a list of such projects.

So, with the ability to handle quadrillions of calculations per second, computers are already more than capable to do tremendous work, and we haven't even touched the quantum computer model, which seems to completely revolutionize the computer as we know it today, making a huge leap in computational power.

I HIGHLY RECOMMEND THAT YOU WATCH THIS 3 MINUTE VIDEO ABOUT ONE COMPANY THAT IS ALREADY USING QUANTUM COMPUTING TECHNOLOGY

Perhaps more important than computational power and accumulated data storage is how we can arrive at relevant decisions. How might we automate the process of arriving at decisions?

Well, this is already happening in almost all aspects of society: construction, food production, management, etc. When you are dealing with huge amounts of data, you need computers coupled with smart software to search through all of it and arrive at conclusions. Of course, the software is written by humans, but it serves as proof that such systems are not only useful, but necessary.

If you want to detect supernovas (massive explosions of stars), you need computers to 'watch' the night sky 24/7 to reveal them (source). If you want to do medical drug research, you need robots (computers connected to external devices) to analyze huge amounts of data and arrive at decisions (source). Robots now dominate many leading bioscience laboratories, doing in just hours what once took days or weeks.

Adam and *Eve* are two robotic computers that form hypotheses, select efficient experiments to discriminate between them, execute the experiments using laboratory automation equipment, and then analyze the results.

Both Adam and Eve have made actual discoveries.

Adam was developed to investigate the functional genomics of yeast and the robot succeeded in autonomously identifying the genes that encode locally "orphan" enzymes in yeast.

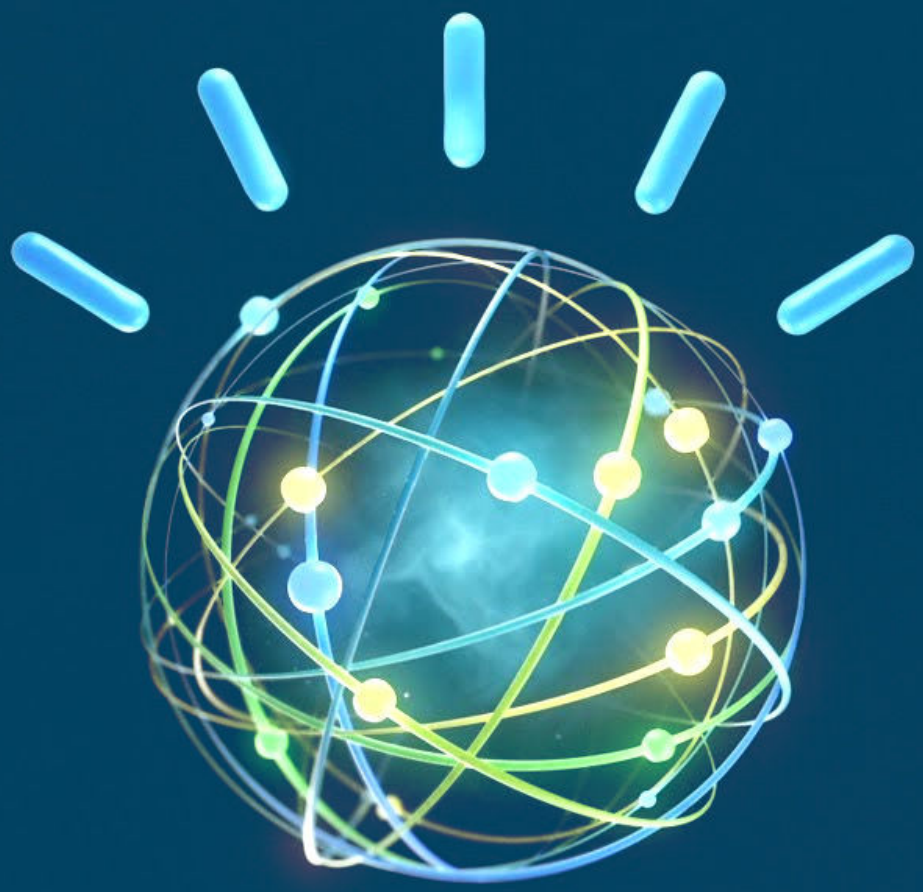
From Eve, scientists have discovered lead compounds for confronting malaria, Chagas, African sleeping sickness and other conditions. (source)

"ADVANCED LABORATORY ROBOTICS CAN BE USED TO COMPLETELY AUTOMATE THE PROCESS OF SCIENCE."

WIKIPEDIA

When it comes to research, perhaps the most impressive robot discovery and overall 'arriving at decisions' is IBM's Watson. I have mentioned IBM Watson in the AA WORLD series more than God is mentioned in the bible :), but there is good reason for that. The way that Watson was built allows for a huge array of uses.

Watson can 'read' hundreds of millions of articles in a very short amount of time, look through videos and photos, understand human language and shapes (objects, images), and then arrive at a decision focusing on whatever you are requesting from it.



MEET IBM WATSON

FROM THE IBM WEBSITE:

- When asked a question, Watson relies on hypothesis generation and evaluation to rapidly parse relevant evidence and evaluate responses from disparate data.

- Watson can read and understand natural language, important in analyzing unstructured data that make up as much as 80 percent of data today.

- Through repeated use, Watson literally gets smarter by tracking feedback from its users and learning from both successes and failures.

- Watson is a cognitive technology that processes information more like a human than a computer—by understanding natural language, generating hypotheses based on evidence, and learning as it goes.

What makes Watson so amazing is its capacity to combine 3 extraordinary features:

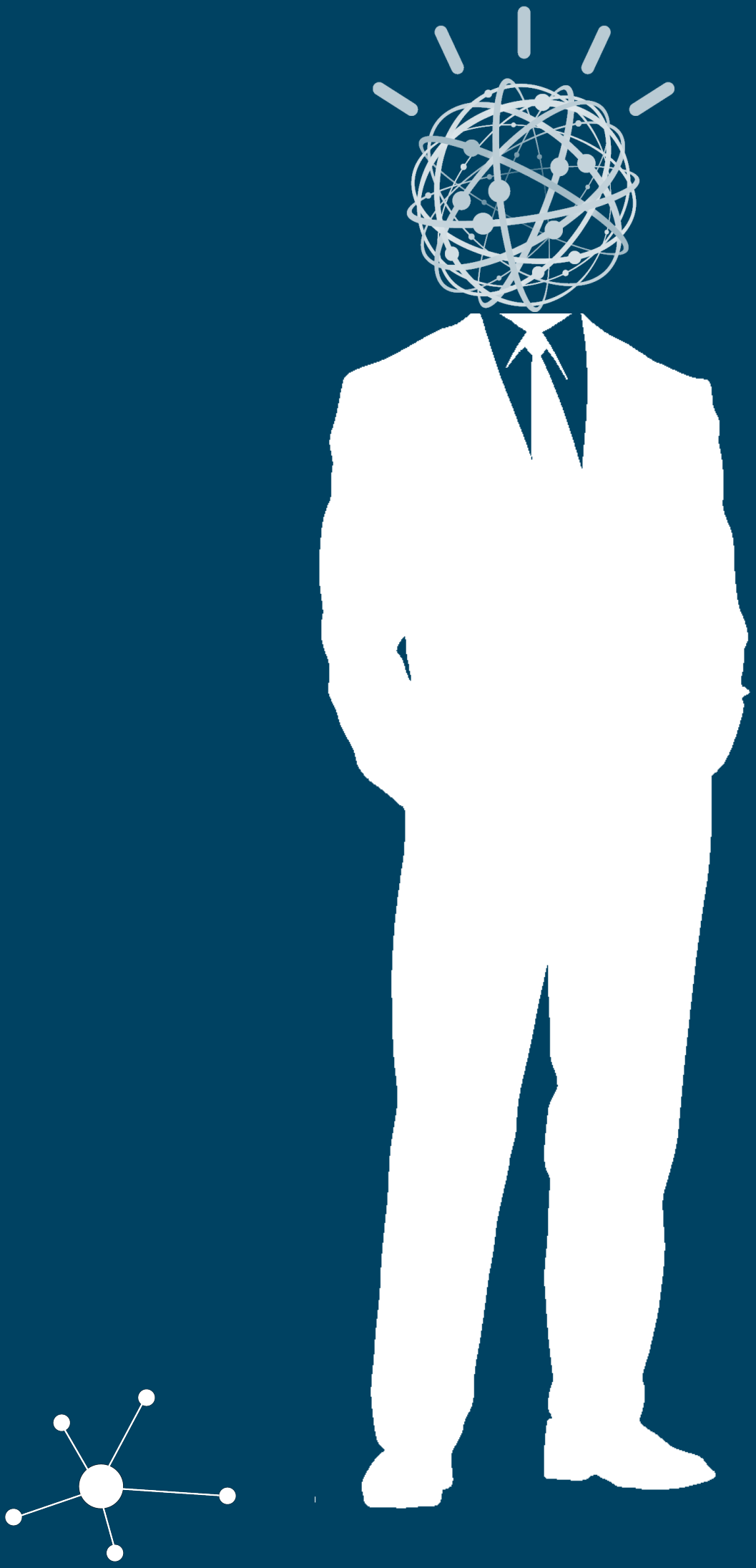
1. **NATURAL LANGUAGE PROCESSING**
2. **HYPOTHESIS GENERATION AND EVALUATION**
3. **DYNAMIC LEARNING**

HERE'S HOW WATSON CAN WORK IN HEALTHCARE:

"First, the physician might describe symptoms and other related factors to the system.

Watson can then identify the key pieces of information and mine the patient's data to find relevant facts about family history, current medications and other existing conditions.

It combines this information with current findings from tests, and then forms and tests hypotheses by examining a variety of data sources—treatment guidelines, electronic medical record data and doctors' and nurses' notes, as well as peer-reviewed research and clinical studies. From here, Watson can provide potential treatment options and its confidence rating for each suggestion." IBM



WATSON CAN ALSO REPLACE GOVERNMENT WITH SMARTER SCIENTIFIC DECISIONS:

"Cognitive computing can help improve the service of the public sector in several ways, improving on slow and manual decision-making processes by employing such capabilities as decision-management, predictive and content analytics, planning, discovery, information integration and data management.

Watson learns like a human. As it refines its own knowledge from its findings in vast sets of data and its interactions with the employees using it, it helps public employees improve process and policy. Watson helps deliver personal service to citizens navigating complex processes. From these interactions, Watson learns the priorities of the public and helps inform policies that serve those interests.

And with threats to security an ongoing problem, Watson can uncover patterns of activity that can help an agency interpret and address abnormal usage that may suggest an emerging problem." IBM

The IBM Watson Discovery Advisor is a research assistant that helps researchers collect information and synthesize insights to stay updated on recent findings and share information with colleagues.

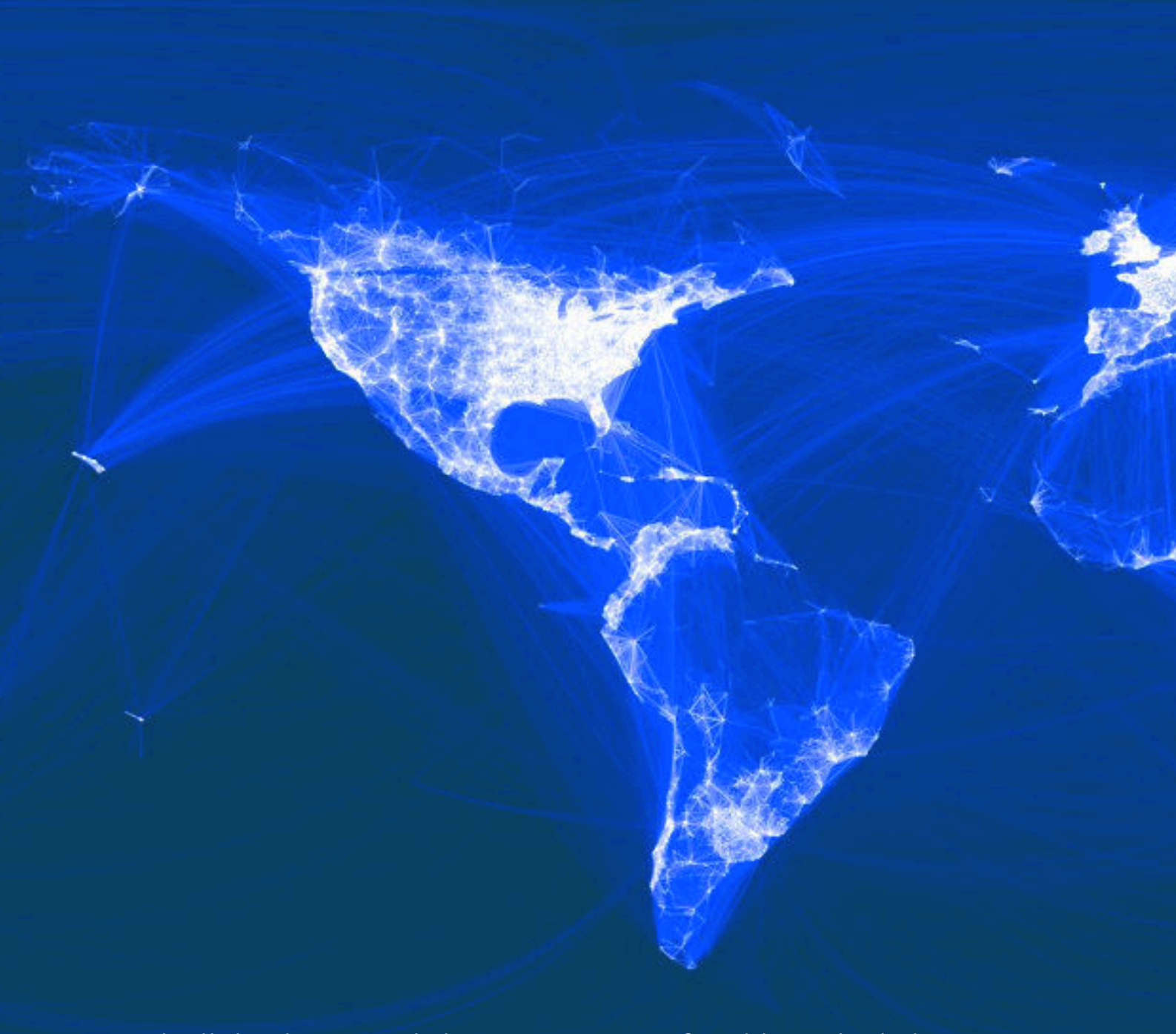
New York's Genome Center plans to use the IBM Watson cognitive computing system to analyze the genomic data of patients diagnosed with a highly aggressive and malignant brain cancer, and to more rapidly deliver personalized, life-saving treatment to patients of this disease.

Learn more about how Watson can accelerate and help clinicians personalize treatments.

What is even more ‘out of this world’ about Watson is its recently presented technology called the Watson Debater, which does just that.

Imagine you ask Watson about anything like, for instance, what is the influence of violent games on human behavior. Watson will read through millions of scientific papers on the subject and arrive at both PROS and CONS about the subject.

Here’s a video showcasing this technology:

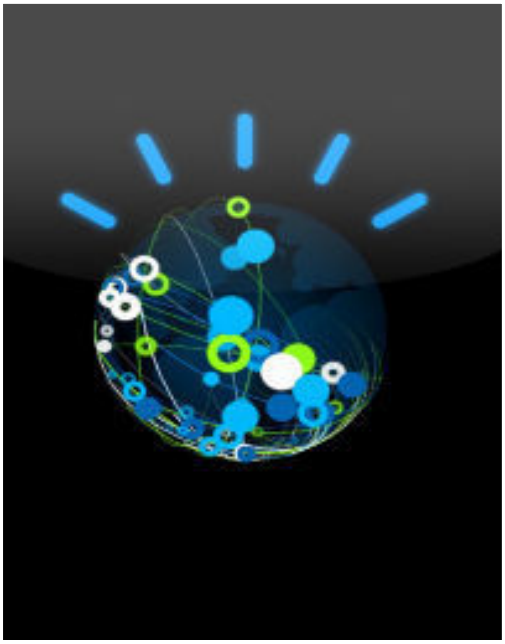


With all that being said about Watson, it is feasible to think that an AI can make scientific decisions of all sorts: city planning, food production, people's health and comfort, environmental decisions, and so on.

The Digital Nervous System (DNS), as I showed you, can be extremely complex; capable of analyzing infinitely varied data from all around the world by making quadrillions of calculations per second and fully capable of complex decision making.

WITHOUT THIS DNS, A CITY WOULD BE JUST A PILE OF CEMENT & METAL AND, FOR US, THE PLANET WOULD BE AN ENVIRONMENT FULL OF UNPREDICTABLE AND UNCONTROLLABLE SURPRISES.

RECOMMENDED DOCUMENTARIES FOR THIS ARTICLE:



SMARTEST MACHINE ON EARTH

HOW SATELLITES RULE OUR WORLD

THE AGE OF BIG DATA

X-RAY EARTH

TES

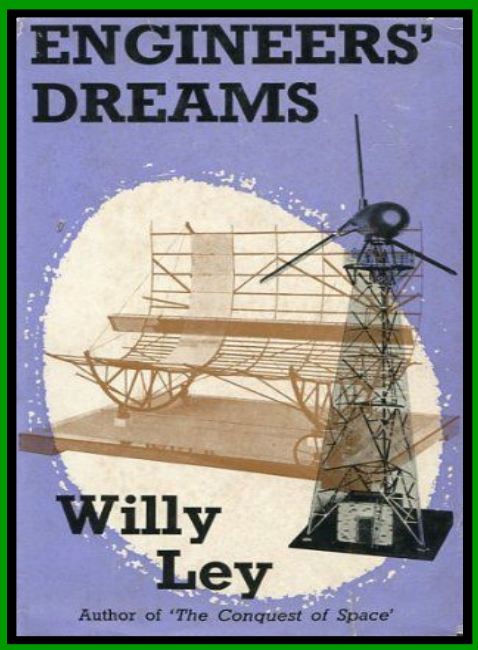
TOTAL ENCLOSURE SYSTEM

TES: TOTAL ENCLOSURE SYSTEM: Since we have already covered the construction, transportation, production & services, and 'home' aspect of this automated and autonomous future, we are left with two important topics to cover in order to think of these cities as being fully autonomous: food and energy.

If a city can produce all of the food necessary for its occupants and produce all of the energy consumed within the city, then we can rightly say that this city can be seen as a total-enclosure system. As a result, these two topics will be huge, so we will cover them in the next TVP Magazine issue.

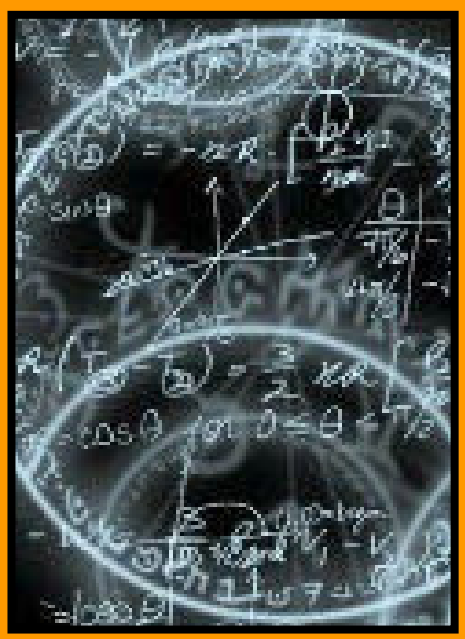
The Venus Project does not feel that retrofitting new technologies into our outdated and obsolete cities is the appropriate and most efficient use of new technologies in order to achieve their full benefits for a healthy lifestyle and environment for all the world's people. Look into The Venus Project's 'City Systems' approach or learn more in the book The Best That Money Can't Buy.

WE RECOMMEND



ENGINEERS' DREAMS

"All Men dream; but not equally. Those who dream by night in the dusty recesses of their minds wake in the day to find that it was vanity; but the dreamers of the day are dangerous men, for they may act their dreams with open eyes, to make it possible." (source)



PHYSICS AND OUR UNIVERSE: HOW IT ALL WORKS

60 lectures: It explains how the universe behaves at every scale, from the subatomic to the extragalactic. It describes the most basic objects and forces and how they interact. Its laws tell us how the planets move, where light comes from, what keeps birds aloft, why a magnet attracts and also repels, and when a falling object will hit the ground, and it gives answers to countless other questions about how the world works.

read it »

watch it »

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