

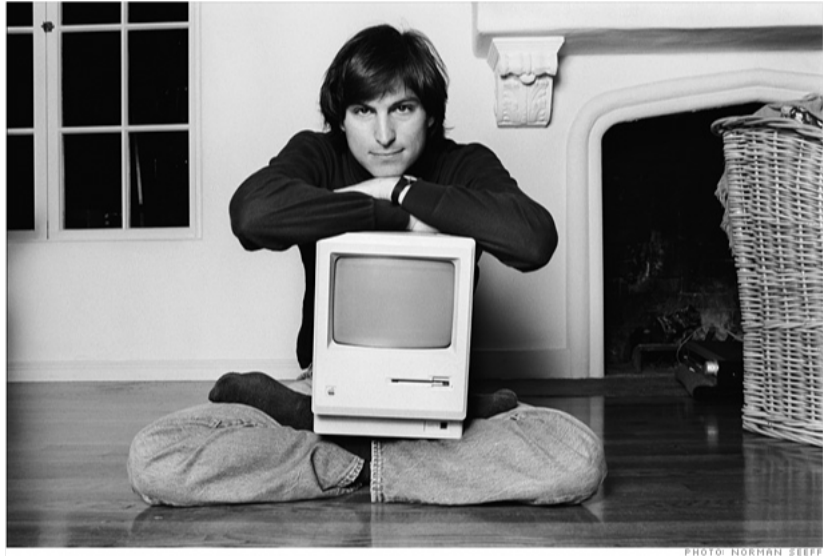
What The Heck Are We Building Here?

Software Ethics in a Time of Surveillance

- Andrew C. Stone, founder stone.com @twittelator

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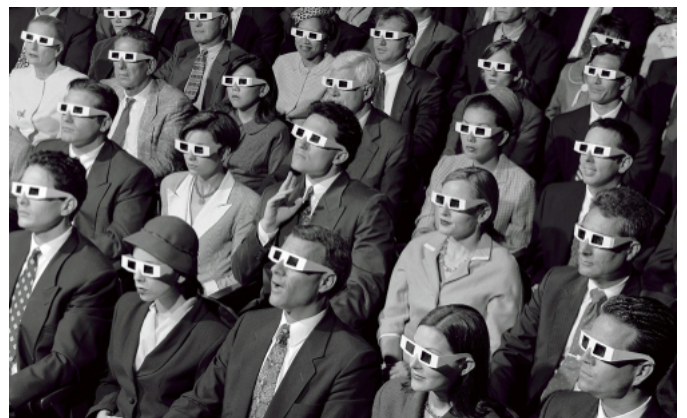
Our lives are the product of a story - a narrative or myth if you will - that inspires, motivates and guides our actions. For me, getting involved with computers in the '80's, I resonated with the story "Microsoft and IBM are building a boring BORG-like top-down culture of empire, and the guys at Apple, the underdogs, the artists, the visionaries, were building a bright future of personal power and freedom to create a peaceful



sustainable world." That's the story I signed up for in 1985, and it had a great run.

The story goes that technology will empower us, technology will liberate us, and soon, there will be so much leisure time, our only task is to figure out what to do with all of it. Why, the future is so bright, you'll have to wear shades.

Technology has literally become the Religion of our time, and to even question it risks one being labeled as a heretic.

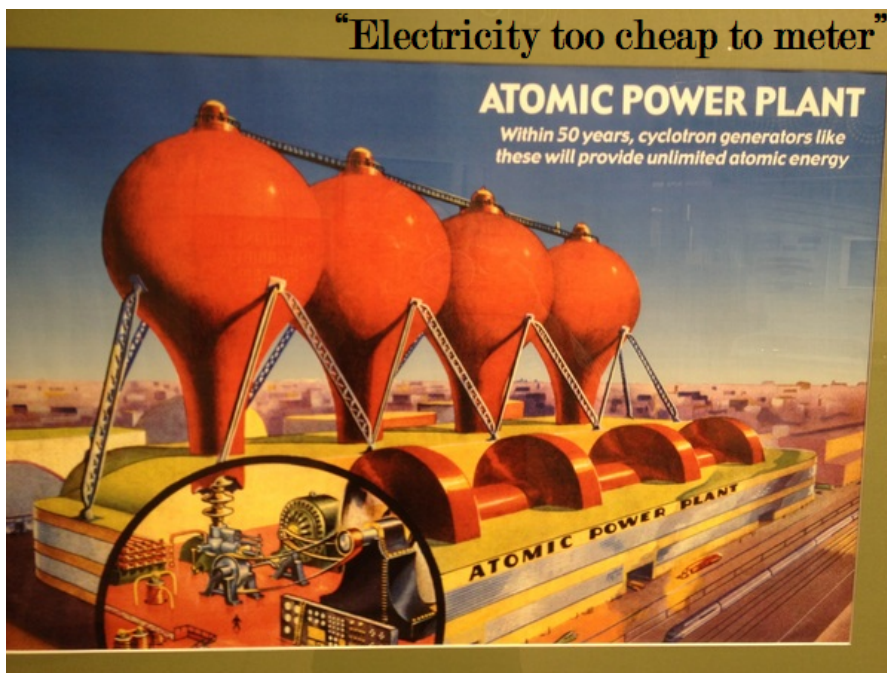


You will recognize the garments of the priesthood: the white lab coats and the business suits. Everything new and better all the time. All a show, a story, to keep us glued to the Future Perfect, believing in a mythical future that is nothing like what is actually unfolding on this planet right now.

Today, we are going to try and look at our un-examined assumptions to get a better handle on where we are now, how we got here, and how we can take more effective control of our collective future by making ethical decisions around what we decide to create with our software and networks. Let's start with: *"Technology produces leisure time."*



I don't know about you, but I have zero leisure time unless I specifically stop coding, stop emailing, stop skypeing, stop txting, stop tweeting, stop using games, and actually consciously

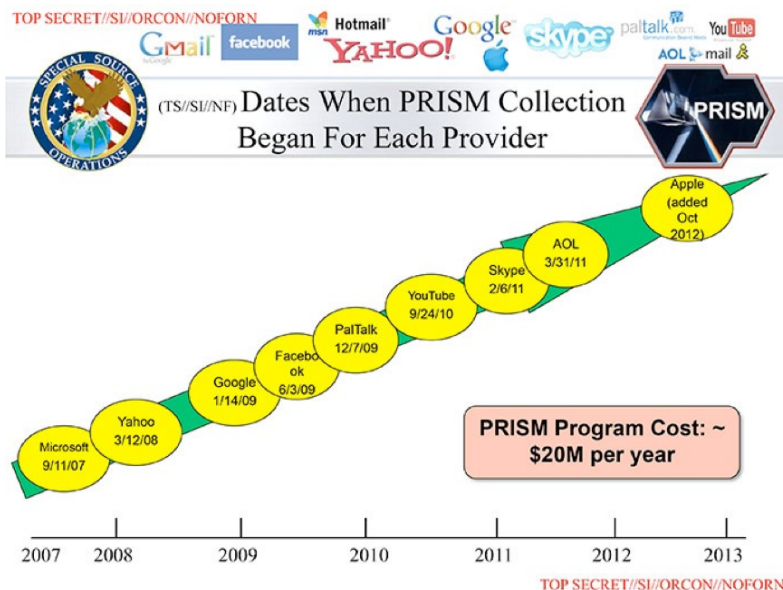


plan time off. So myth number one about the future, leisure time, is officially dead. That joins Nuclear Energy's myth of *"Electricity Too Cheap To Meter"* from the '50's. These are known myths now, but they were the official storyline in their time. The future costs of containing, if at all possible, the Fukushima Daichi disaster will far outstrip the value of the energy ever produced by these reactors, and maybe all the reactors in Japan as well.

Every now and again, one must climb the trees of the forest to get an overview of where the heck we are as a nation, a civilization, a planet of 8 billion souls. This last year, I took a hiatus from the breakneck speed of software engineering to try and get a more comprehensive understanding, all because of two things that precipitated a crisis. The first affected everyone on the planet: Edward Snowden's NSA revelations, of which, we apparently have not even heard the worst.

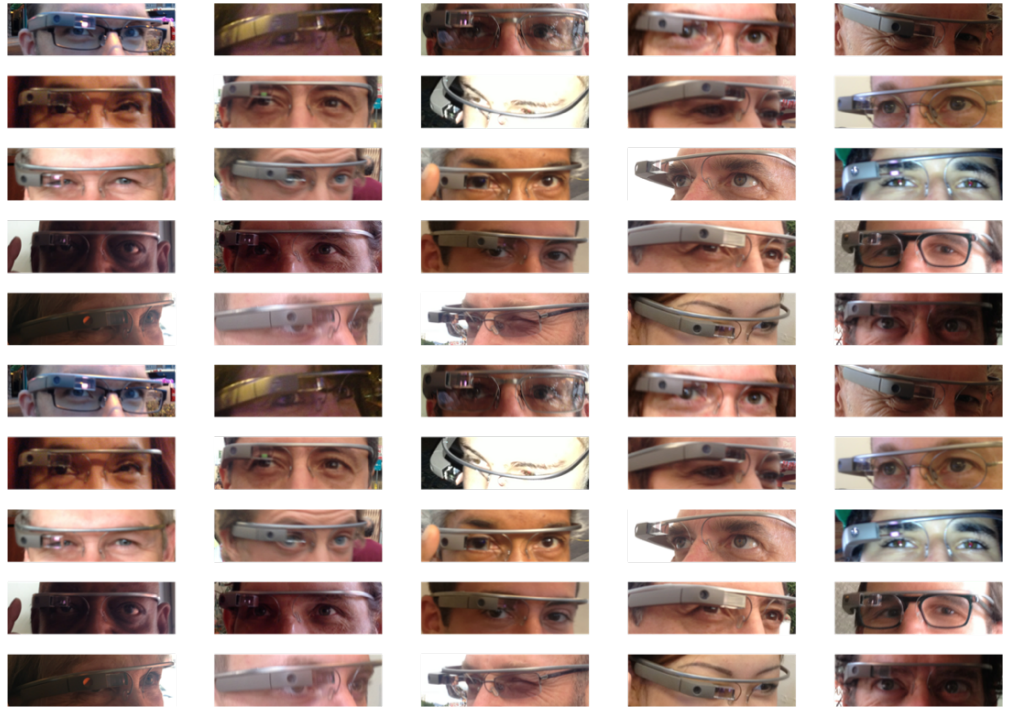


Let's take a little cold comfort that Apple held out until a year after Steve died before forking over the keys of our iCloud to the NSA, unlike Microsoft who rushed first to deliver it's clients confidential data to the government as early as 2007. Well, the part of my mythology that said "*Microsoft was an evil unpatriotic sell-out*" turned out to be true.



As the Snowden revelations have unfolded, I've become sicker and sicker with outrage and the sense of violation, not only from the NSA, but the corporate partners who have betrayed us. What was your reaction to all of this? Did you just stuff it into the Fear Pit, the Mystery Vault, the Chamber of Horrors where we put realizations we cannot cope with? The same place we put news of Three Mile Island, Chernobyl, Katrina, BP Horizon, Fukushima. Gargantuan failures that have evaded scrutiny because they run counter to the official manufactured narrative.

Here we have spent our careers trying to create software to help empower and liberate people, and we find that we've inadvertently given the Military Industrial Entertainment Surveillance State 100% access to all of our innermost thoughts and desires. To wit, as software engineers and technology advocates, we have had a hand in creating one of the most distopian and inequitable societies imaginable.



The Machine has turned on democracy, and the current vector does not look good.

We have created immense juggernaut computational systems that are unstoppable by any human at this point. They exist in finance, surveillance, marketing and social engineering.

Jaron Lanier, in his book "Who Owns the Future?" calls them "Siren Servers" after Ulysses's encounter with the beautiful Sirens that would drive men mad if they heard them sweetly singing.

facecrack

Facecrack helps you waste time and stalk the people in your life.

For example, in the financial industry, the flash-trading has created a mechanism which is constantly siphoning off capital from the global markets. The bigger the servers and the closer to the long lines building, the faster it can trade. And it's concentrating the wealth into fewer and fewer hands. Although a small fee for each trade could be levied and thus dis-incentivize flash-trading, nowhere to be found is the political will to push such a fix through.

Top Income Shares Grow

In 2012, the top 10 percent of earners took home more than half of the country's total income — the highest recorded level ever.

Note: Income is defined as market income and includes capital gains.

Source: Emmanuel Saez and Thomas Piketty



Another core assumption we should challenge is the reality of money. Originally, and quite effectively, money was simply a medium of exchange. But it is our faith and

belief in the power of money that gives it its significance and dominance in our lives, affecting our decisions and creating limitations. Money is simply an abstract construct with inordinate power over us. However, due to money's abstract nature, one can simply reorient one's attitude and relationship with it, to change the power it has over us as individuals. But to change the entire system is a different matter.

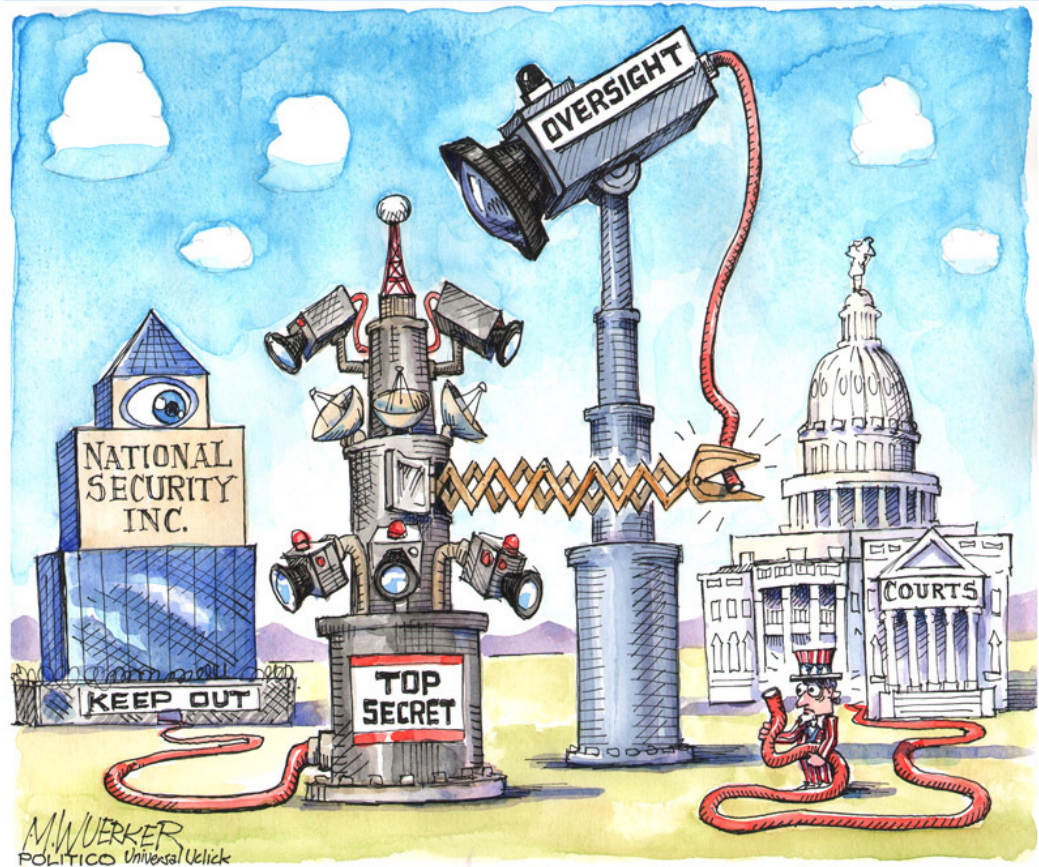


The mechanisms that allow 85 people to have more money than the poorest 3.5 billion of the population are simply unsustainable. At what point will people realize that the game is so rigged, that the only way out is to adopt another currency - like bitcoin or barter? With the Supreme Court's Citizens United ruling and the McCutcheon Unlimited Campaign Finance decision, there is now no limit to how these 85 people can create policies that benefit the few at the expense of the many.

And our presumption that the US is the greatest country in the world: according to a global rankings report, the U.S. is in 16th place overall. The U.S. ranks 70th in health, 69th in ecosystem sustainability, 39th in basic education, 34th in access to water and sanitation and 31st in personal safety, and ranks a disappointing 23rd in access to the Internet.

Here's another assumption. "In America, we are free". How free do you feel when you know

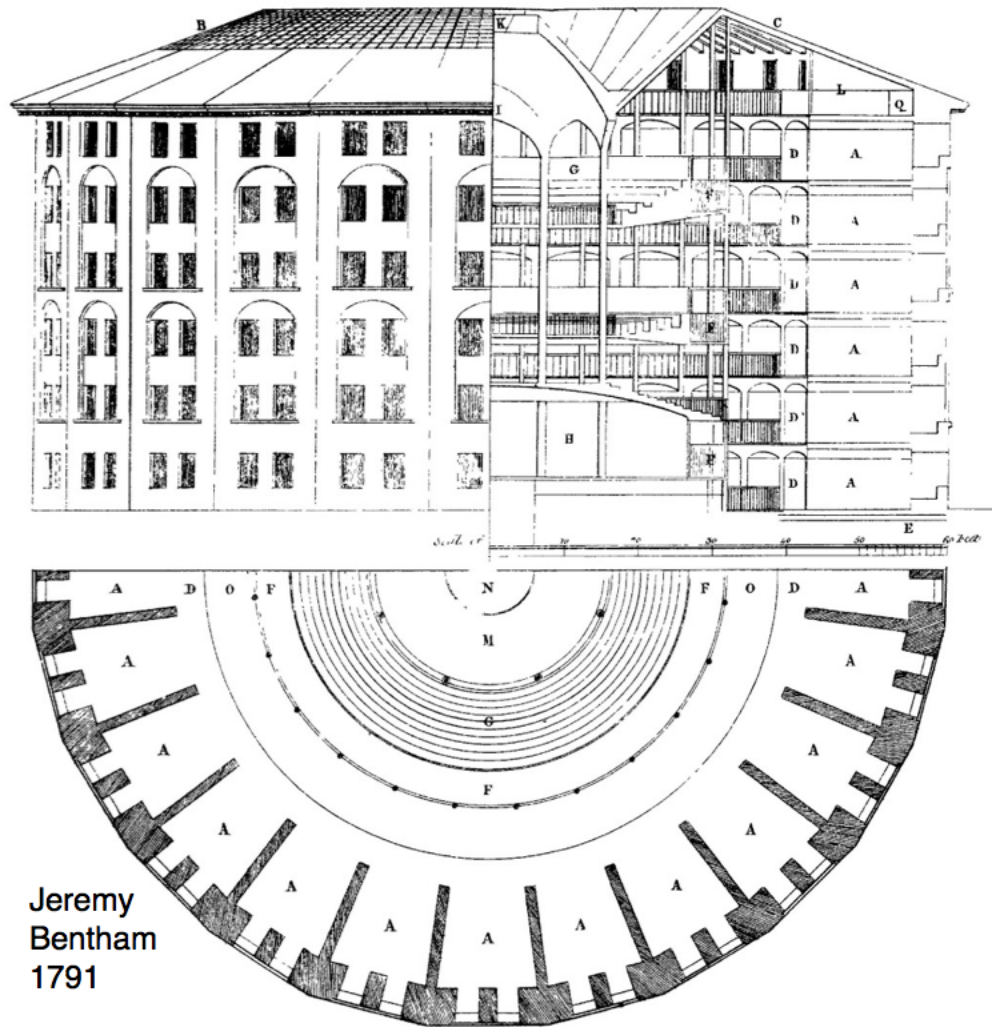
your phone is bugged, your computer is watched and everything you've done on the internet has been carefully collected? When you always have to wonder as you meet someone new in Tech if they might be also employed by the NSA, the CIA, the FBI, the DHS, the



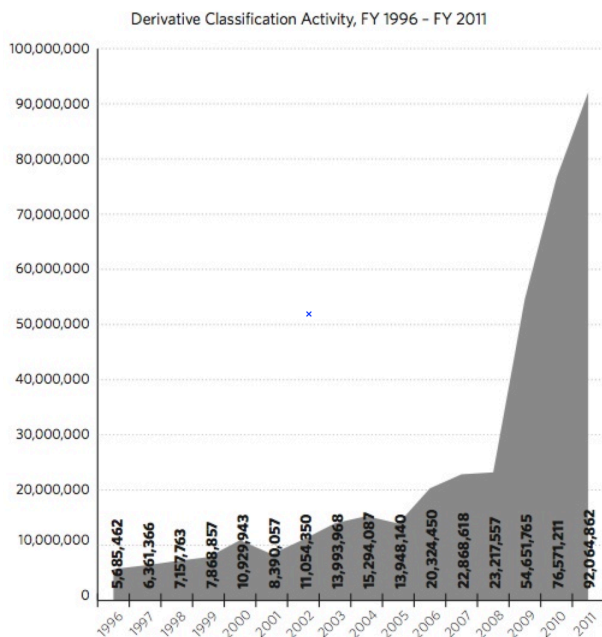
DoD, the DEA and a bunch of other security organizations you have yet to hear about. It's creepy and I'm calling it what it is.

You might say, "I'm a law abiding person, why should I fear the government, Facebook and advertisers collecting information about me?" To that I say, "Please understand the power of the Panopticon."

In 1791, Architect and nascent Social Engineer Jeremy Bentham invented the Panopticon - a design that applied equally well to prisons, mental hospitals and schools. By placing the inmates in a circular configuration around the one-way mirrored central viewing station, the inmates would never know if they were being watched or not. But the effect is the same: self-policing takes over when someone feels they are being watched.



A democracy relies on open and reliable information to stay strong and healthy - but that's not the trend we are seeing. 90 million documents were made secret in 2011 - a ten-fold increase over the number made secret in 2001.



So what does all of this have to do with being a software engineer? It's us creating the groovy Twitter apps, Candy Crushes, and other mind-numbing and addictive interactions. In the past year, I've been noticing more and more people checked out on their devices and not interacting with each other, even when in social situations.

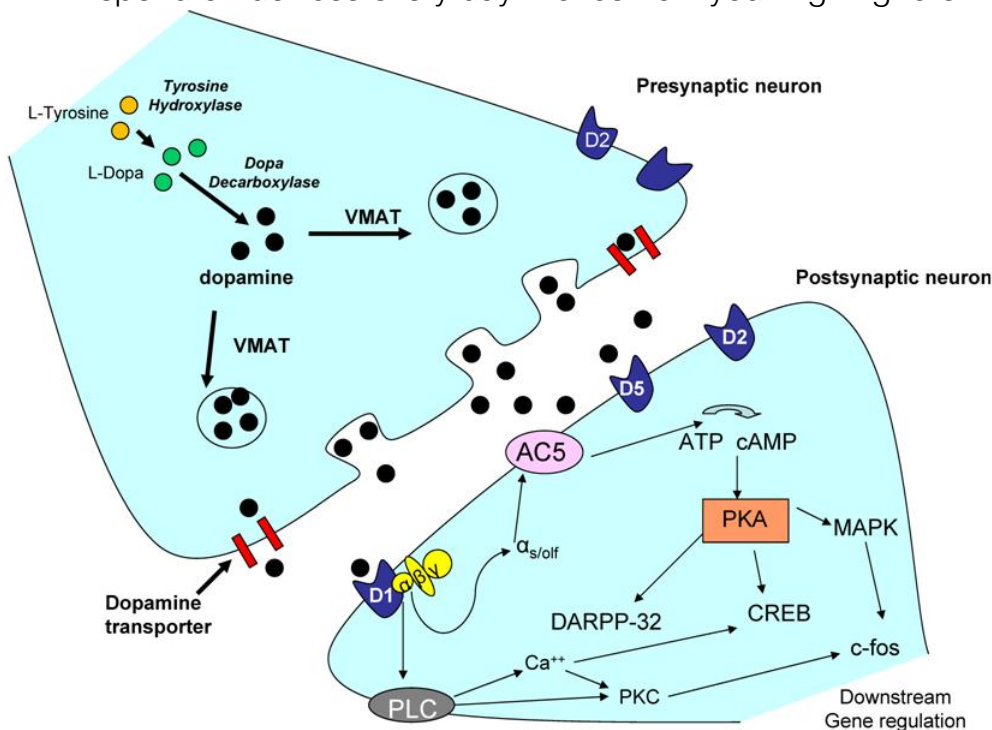
I'm as guilty as anyone, although I've made a conscious effort to reduce my "screen time".

The second cause of my crisis was more personal - my 13 year old daughter Emma's device addiction.

Emma is very unique - she has Cerebral Palsy, part of her brain that controls executive function is damaged - so she says what she thinks almost as she thinks it. Great breakthroughs in neurology have come by studying people with brains like Emma, and it's fascinating to listen to her internal process. She's only beginning to overcome an anxiety attack coming off of the iPad or DS or Mac. Here we've worked so hard to create awesome apps and immersive experiences, and yet we're creating little monsters with massive addictions.



Please believe me about the addiction. Watch how much time and attention you spend on devices every day. Notice how you might ignore those around you as you "jack in".



I learned the science of this addictive behavior from Dr. Barbara Jennings of Sandia National Laboratories in her TedXAbq talk [Cell Phones, Dopamine, and Development](#). She explains how we've become information seekers: the brain releases dopamine when finding something we seek.

On our devices, we're constantly put into a seeking mode, looking for new texts, new tweets, new emails, new “shinys”.

Think how you feel when you get a message versus when you don't. You might feel elated and worthwhile. That's the effect of dopamine on the brain. In Skinnerian psychology, this seeking loop is called variable-ratio schedule, a response is reinforced after an unpredictable number of responses. It's the same mechanism which causes gambling and lottery addictions, only we have an entire society being susceptible to the addiction.

Ever forgotten your phone, and went back to get it no matter how late you were going to be? There's actually a name for this medical condition: Nomophobia - the no mobile phone phobia, or the anxiety we feel when we don't have a phone. That's a long way for society to come in just 7 years.

It represents an odd plot twist on the story, which was going quite well: the Exile into the desert of NeXT to find the true believers who carry the Prodigal Son back to Apple to bring science, music, art, culture and enlightenment to everyone.



Instead we've built the ultimate surveillance state and filled it full of mindless candy-crushing zombies.

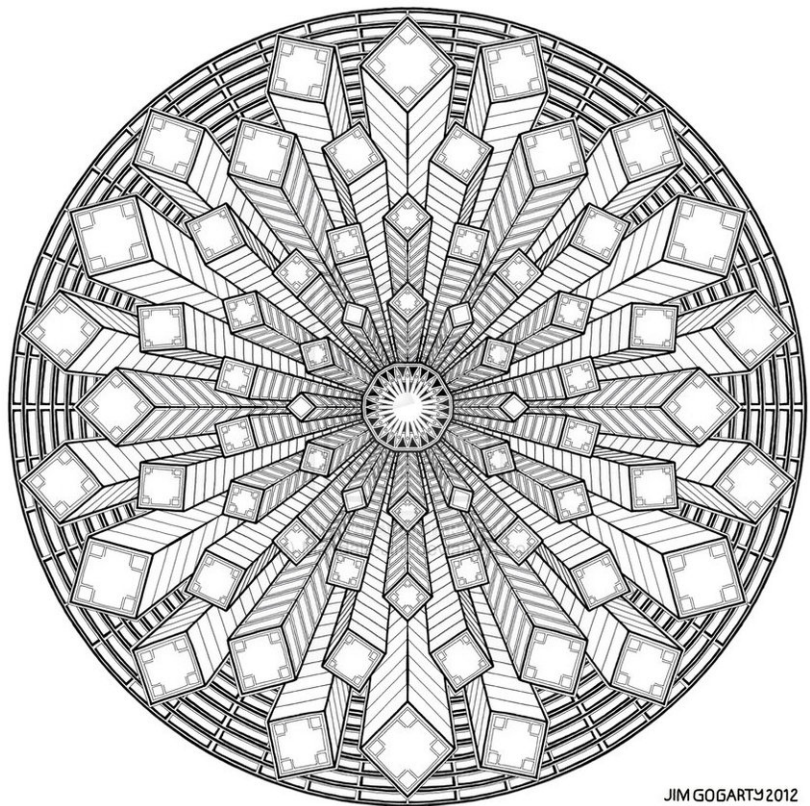
So now what do we do? We have been part of creating this, and now we must take part in redirecting it.

I want to share a vision I had on my birthday this year, and to do that, let's get into the right mental attitude. Last

year, during my #altCONF talk [DMT, the NeXT and the Soul of the Human/Machine](#), I demonstrated a power breathing exercise - let's do it again.

You'll just breathe in deeply,
and exhale deeply as fast as
you can, as long as you can,
then hold your breathe a bit,
then completely relax, and go
with the rush.

The cool thing about
Quantum Physics is that,
whether you understand it or
not, it's always in play.
Something here can affect
something there, something
then can affect something
now. It's the veritable
Cheshire Cat and Ghost in
the Machine. And yet it goes
a long way towards
explaining synchronicity,
synaesthesia, telepathy, deja
vu and remote viewing.



JIM GOGARTY 2012

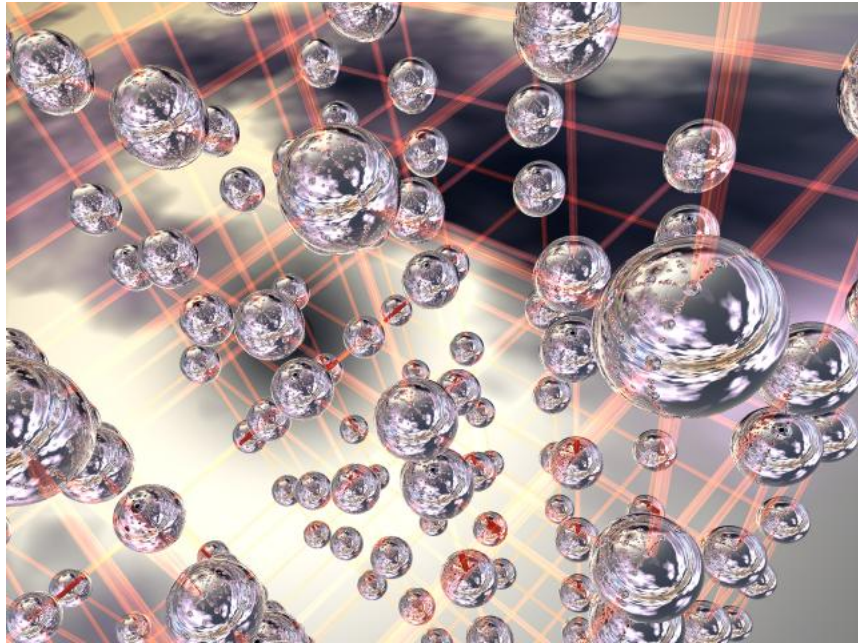
On my birthday I was relaxing and a flash of insight flooded over me - I perceived bright colorful tubes coming out of my head and body and connecting with everyone else's bright colorful tubes coming out of their heads and bodies as a vast interconnected network. And it was alive and greater than the sum of its parts, us.

In that moment, I realized that our minds together make up the ultimate computer.



In fact, it's always been booted and people have been jacking into it for thousands of years. Meditation, Yoga, Martial Arts, Sacred Medecine, prayer, dance, running, painting, gardening, volunteering and music are all tried and true tools of Techgnosis that allow access to the numinous on demand. We crack the illusion of separation and isolation, and become part of something much more enduring, wondrous and freeing.

The Vedic sages even had a term for this particular vision - Indra's Net - revealing the holographic nature of the universe, the interconnectedness of all things, the lack of a substantive "self" and the notion of non-locality.



As programmers, you'll understand that we are basically patching our brains to be able increase functionality and the subltler senses like empathy and compassion. Together, we are The Computer and we are just learning how to operate it. The emergent behavior of expanding human consciousness is unknown by definition, but it seems to have an interesting effect of cracking the manufactured consent of consumerism. We as individual, encrypted, decentralized nodes are forming something new and unpredictable.

I still believe that computers and technology are great tools, but they have become a Golden Calf, receiving the misguided worship of the masses. See if you can become conscious of your device usage and if you can reduce it by taking an opportunity to become more present in your physical reality. Inhabit your existence fully.

Challenge your pals when you gather socially to put their phones in a pile in the center of the table, with the understanding that the first person who grabs their device has to pay the tab!

So when it comes to deciding what sorts of projects you want to code, consider what impacts your project may inadvertently have. Use your gut and your heart to help you evaluate propositions.

Now is the time when we need to create apps which solve the problems that apps have created! A good example would be an app running in the background that can gently remind someone when they need to transition off of the device. It would help kids get off their devices more easily, and would be a guaranteed best seller for weary parents.

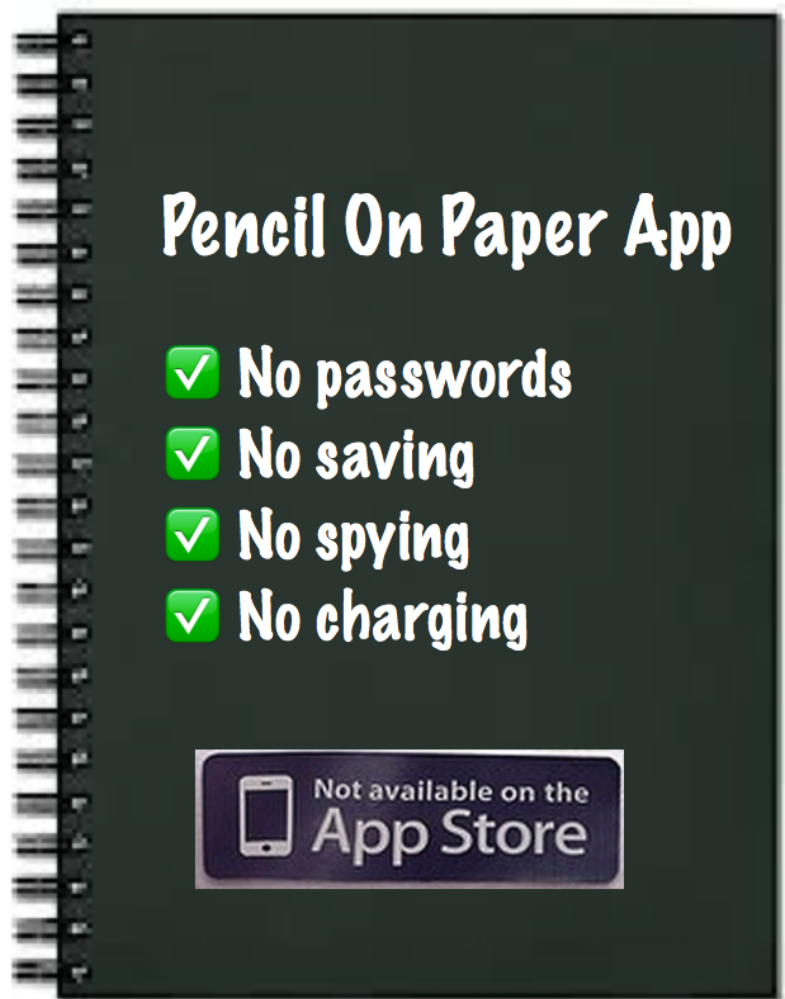
Any app that tricks users into actually going outside and interacting with the physical world would be helpful. As well as content creation apps, like Bill Atkinson's gorgeous PhotoCard, that turns the computer user into a creative from a mindless consumer.

Games that let people think about real world problems and solutions might be instructive. Tools to register people to vote and participate in democracy are needed.

Apps that give abilities to those with disabilities are truly revolutionary. Apps that encourage curiosity, understanding and revelation are important.

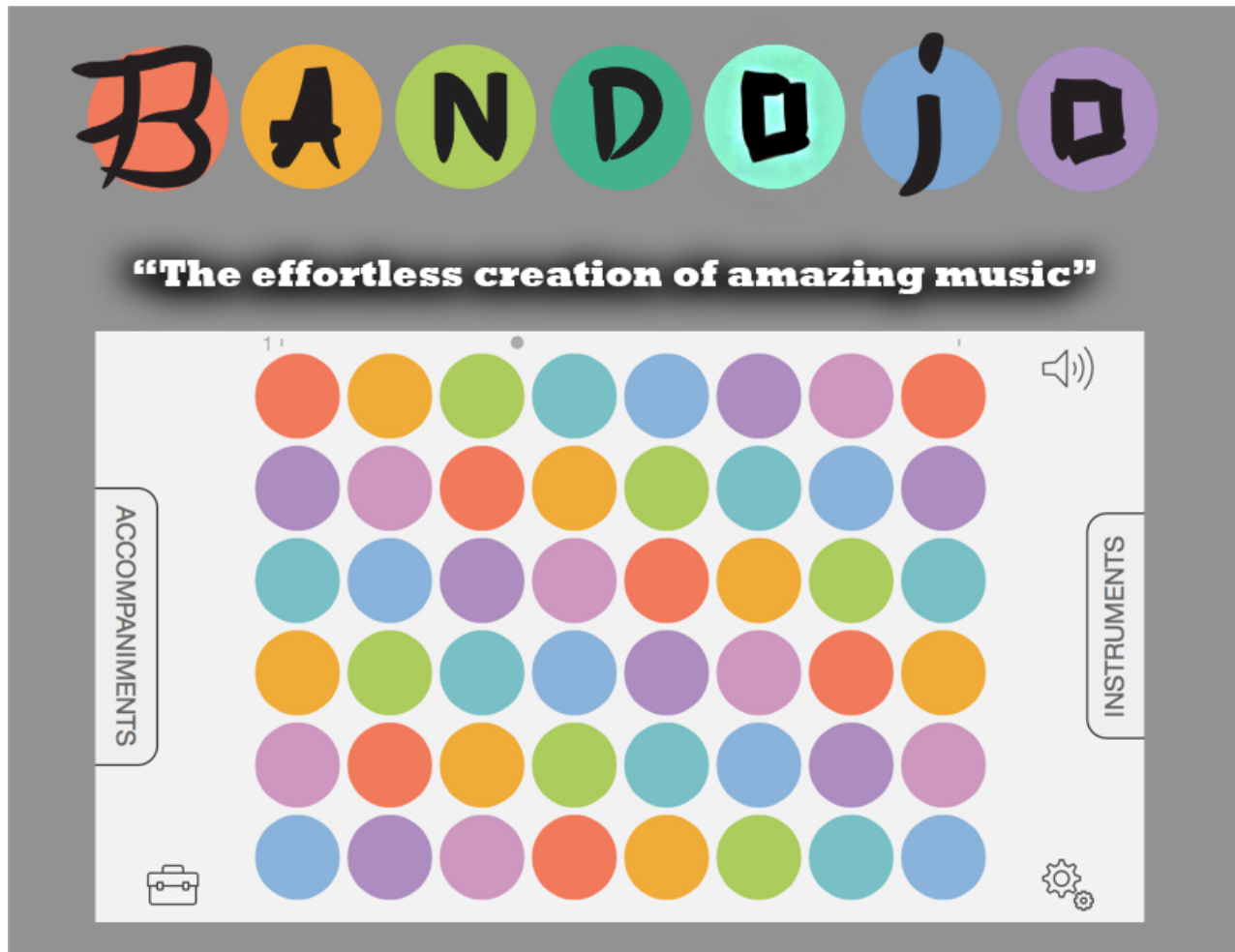
Apps that can create or distribute work will go a long way to help with the fact that software mediation and automation has been the number one job destroyer. Imagine crowd-sourced solar and wind energy generation facilities.

Here's a design for an app that can provide a place for private thoughts, doesn't require power or password:



Introducing Bandojo...

Available on the AppStore



I often times quip that I got into software because I wanted to be a rockstar but didn't have any musical talent. Well, during my break, I helped build a cool music app named "Bandojo" which is perfect for people who always wanted to jam but had no rhythm or knowledge of scales. You can instantly form a band with nearby friends and play together.

[go demo it yourself!]



Each one of us can plug into the universe, becoming something greater than we were when we conceived of ourselves as separate bags of flesh and bones. A synergy emerges, where the sum of the parts is greater than the parts themselves. I submit we are part of a Vast Active Living Information System, far beyond what our physical computers are currently capable of. Person by person, node by node, the people of this planet are hooking into the IndraNet and understanding the interrelationship of all that moves upon this beautiful blue marble.

So I believe it's a race of whether we awaken as a fully conscious species that can live sustainably in harmony with each other and nature, or whether we continue fullspeed into self-destruction through over-consumption and greed. Which wolf pup will we feed? Never doubt for a moment that your choices can make a huge difference to the people around you, and as you know, that includes everyone on the planet now.

Time to tune in, turn on, and play together!

Earth Day 2014 Albuquerque New Mexico Planet Earth

Attributions and Links

CellPhone & Dopamine

85 richest vs 3.5 billion

90 Million secrets/yr

Who Owns the Future?

Future Nauseous

Design Fiction

Electric Sheep

Alex Grey

Bandojo

Stone