2020 Hindsight

Looking Back at Some of the Best Things about 2020

By

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February 14, 2021

It was while working on my dissertation on the psychology of religion that I first began realizing how acutely fear can impact our mindset and wellbeing. My thesis was and remains that, at its best, religion can help us cope with our fears by better enabling us to cope with reality. If religion is partly about enabling us to commune with a higher power, then, theologically speaking, reality is itself just another word for God. Reality is everywhere and all that exists is real. As theologians say is so about God, we can only catch glimpses of reality, if we are fortunate, but we can never fully comprehend it.

Religion helps us catch glimpses of Reality when it enables us to become more compassionate and, thus, more aware of others and the world; and when it strengthens us to face adversity with kindness and courage so that we aren't afraid to see the world as it is, and deal with it on its own terms; and when it opens us to the wonder, awe, and the mysteries of our existence with joy and enthusiasm. *Enthusiasm* comes from the Greek word, *enthousiasmos*, which means to have "God within us," *in-theos*. From this we might conclude that genuine religion manifests itself as enthusiasm, or that God is expressed and incarnated in us as positiveness, happiness, excitement, appreciation, and, of course, love—love of life, love of others, love of the wonderful world we are fortunate to be part of. Just substitute the word *God* with *Reality* and we can also say it is when we are in touch with reality, even with its cruelties and suffering, that we are most alive, most whole, most fulfilled, most happy, and most able to love ourselves, others, and the world. To be moved by God, to be aware of reality, whichever we choose to call it, looks like enthusiasm.

Admittedly, there are many who would say the opposite, that reality is miserable, and anyone who pretends otherwise is naïve or delusional. But, as I said, it is possible to be in love with reality while accepting its sorrows and hardships and uncertainties. Those who only see its dangers and miseries are truly delusional, because their cynicism has become a shield of delusion to protect themselves from ever becoming disappointed, even as their fears and mistrust blind them to the joy and beauty and good in the world and in others. Better not to experience these pleasures to begin with than to risk having them snatched away from us after we have opened our hearts to them. Better to protect ourselves from such grief and anxiety by shielding ourselves from reality, hardening our hearts against the world, and isolating ourselves within a small, cloistered, delusional world all our own, outside of the larger, mysterious, incomprehensible reality that might overwhelm us.

When this happens, religion is expressed at its worst. Instead of helping us better cope with reality, it drives us deeper into our delusions that are rooted in fear and paranoia manifesting as apocalypticism, catastrophizing, and unfounded conspiracy theories. *Apocalypticism* reflects the fearful thinking inherent in Fundamentalism: religion that is built upon the collective fears of a group that have become so inflated its adherents believe the world is coming to an end, that it

must end, and that it is their religious duty to help it end in order to establish a new, safe, utopian reality reflective of their common desires.

Catastrophizing, on the other hand, has become more common among socially progressive groups who consider some of the smallest infractions the worst of crimes, saying the wrong word, the wrong pronoun, the wrong idea, or laughing at the wrong thing, no matter how innocent the intent, is evidence of all the evils in the world—racism, sexism, heterosexism, and so on—and the evildoers must be punished and eradicated. The end result is the same as apocalypticism, the old world must end, which its adherents are eager to help accomplish so they can fashion a new world reflective of their tiny, cleansed, purified, delusional fantasyland.

No matter if they are on the extreme right or left, both types are prone to unfounded conspiracy theories. On January 6th, the Proud Boys in DC were so cloistered from reality that they believed they were starting a nationwide revolution when stupidly raiding the Capital. Their delusions were based on utterly false claims of widespread voter fraud, which they decided, nevertheless, to be absolutely convinced of. On the other hand, the new progressive movement #DisruptTexts, calling for the banning of classic literature from being studied in schools on the grounds they are all racist, sexist, and misogynistic, is equally as extreme and delusional. Their proposed ban, which some public schools have begun to accept, includes everything written before 1500 and lots of newer classics too, *The Scarlet Letter, Catcher in the Rye, To Kill a Mockingbird, Huckleberry Finn, Handmaid's Tale, Brave New World,* even Dr. Suess, are all on their banned books list. If they have their way, this will not end until only entirely new books, reflecting their own purified utopian mindset, are allowed to be used in the indoctrination of our children. Yes, book banning is back, and it is the liberals who are responsible.

I've begun this way in order to point out just how destructive fear can be to our mindset, sometimes resulting in extremely delusional thinking. Fear causes us to want to protect ourselves from danger by shielding us from reality. Yet there is the tendency to believe it is optimism that is the delusion. How can anyone sane look at the state the world is in and be happy. There are certainly happy people who are happy because they live in La La Land and are not facing reality. But my point here is that fear alone also makes us look at reality through a very narrow lens that becomes increasingly delusional because it is the only bit of reality we see. It takes a small glimpse of reality and considers it the whole of reality, like the blind man who takes hold of an Elephant's trunk and thinks it's a snake, or another who takes it tail and think's it's a rope, or another who feels its leg and thinks it's a tree trunk. There is much more to reality than what we fear. Like those Alpinist climbers who must face their fears, suffer along the way, and risk death to get to the top of Mount Everest, those of us who can transcend our fears will discover a world much larger, vaster, and magnificent than we could have believed possible.

That's a long but important preamble to the point of today's message, that if you thought 2020 was a strictly miserable year, it might be because the fear and anxiety of COVID-19 and a tumultuous and worrisome national election blinded you to all the good that was also happening. In order to

broaden our view of reality we must train the mind to look beyond its own deceptive limitations. One method is to remind ourselves that there are many good things happening in the world and that we should intentionally look for them. Another is to discover reliable resources that provide positive news and information about the world. My primary source is the Abundance Community founded by Peter Diamandis, coauthor of *Abundance: The Future is Better than You Think*, and, more recently, *The Future is Faster than You Think.* Each year in January, Diamandis hosts the four-day long Abundance 360 conference, during which he inspires attendees by reminding us of all the positive things happening in the world. As a member of the Abundance Digital community, I'm able to attend virtually. I'll spend the next few minutes sharing a little of what Diamandis said at the start of this year's conference.

I'm going to start by talking about energy and the energy industry because we're all concerned about the frightening impacts of carbon caused global warming, especially after four years with a President who did everything possible to undermine whatever progress we were making to address this global crisis. Shortly before the COVID-19 pandemic seemed to put our lives on hold, Heliogen, an innovative energy company announced its success in producing green hydrogen energy for significantly less than the price of natural gas. If you don't know much about hydrogen energy, it is created by splitting molecules that contain hydrogen. Until now, it has been done by splitting methane molecules, with makes it dirty fuel. By Heliogen is using concentrated sunlight to heat water to a thousand degrees at which temperature it can be split, then stores it in gravel, in the form of heat, so it can be transported and used anywhere. This is a major breakthrough because, until know, it hasn't been cost effective to store unused electrons. Electricity is cheaper to make than to store and, even then, could only be used relatively close to its source. Until now, stored energy also lost elections in the process of storing it, making it even more expensive.

Thanks to COVID-19, during which oil and gas prices plummeted, many in the energy industry finally saw the writing on the wall. Fossil fuel, including petroleum, is quickly ending. So they began investing in Heliogen, increasing demand for its green hydrogen energy from $10 billion less than a year ago, to $28 billion today. That's enormous growth, even if we weren't in a pandemic.

Speaking of energy, during the past year the cost of solar energy dropped yet again from 1.75 cents per kilowatt hour to 1.3 cents, on it's way to becoming almost free. As Diamandis told attendees, "It will soon be less than a penny. It's killing natural gas. Sun power is winning 95% of the time." He also noted that the number of renewable energy projects doubled in 2020, even as $30 billion in natural gas projects were canceled. President Biden isn't going to have to worry about banning fracking, the green energy market is about to make it obsolete.

Global demand for batteries went from 250 gigawatt hours in 2019 to 1,500 in 2020, according to Diamandis, and is expected to grow to 9,000 by 2024. Just one gigawatt can power about 300,000 homes. This increase is largely because so many countries have announced bans on gas- and diesel-powered cars—twelve will have the ban in place before the decade is out, and another nine

by 2046, a number I'm sure will increase given that every major car company is switching to all electric vehicles.

When it comes to fossil fuels, 2020 was a good year for the environment, not to mention the decrease in carbon emissions because of the COVID-19 lockdown. And construction on the world's largest nuclear fusion plant was begun in France, in collaboration with 35 other countries. So 2020 has proven that the world gets it: global warming is real, its serious, we need to do something about now, and we are.

The news is equally as encouraging regarding transportation. We've not been driving as much, which has hurt the oil industry, and the airline industry may never rebound from the impacts of the COVID shutdown. But when it comes to clean energy transportation, things have been booming. While car sales overall have slumped by 20 percent, Diamandis points out that there was 43 percent growth in electric vehicles in 2020, Tesla's new batteries have five time more energy than any other batteries at half the cost and are six times more powerful, and autonomous vehicle investments grew last year and is expected to keep growing 63 percent per year to become a $54 billion industry by 2026. Before the decade is out, we won't need to own cars anymore, or have parking spots, or waste space on downtown lots and garages. We'll just click an app on our virtual cell phones and get picked up by a safe autonomous vehicle for a fraction of what it cost to buy, maintain, and insure an expensive machine that sits idle 99 percent of the time. By the way, the price of lidar technology, used by WAMO automated cars, has dropped from its original price of about $100,000 to about 100 bucks, and is now about the size of a deck of cards. If anything, 2020 has proven this transformative industry is right on track.

We're all concerned about the impact COVID-19 is having on the economy, including putting people out of work and forcing some businesses to permanently close. But the news isn't all grim. Unlike a year ago, today everyone knows what Zoom is, a ten-year-old company that went from 10 million meeting participants at day at the end of 2019 to over 300,000 million a day by the end of March 2020. In addition to saving our butts, Zoom's revenues went from $122 million the first quarter of 2020 to $623 million in its fourth quarter. During 2020, digital commerce last year broke all previous records resulting in $88 billion in capital investments in the U.S. alone. Overall, according to Diamandis, companies raised $3.6 trillion in capital, more than any other year in history, plus another $1 trillion in cryptocurrencies, another all time high. As Diamandis says, "E-commerce has not slowed down." So even though things have certainly changed, and some businesses and industries have suffered, others have made tremendous gains as all of us have moved to adapt our lives and work to the pandemic.

On a personal note, I've never invested in the stock market before, but at the start of the pandemic, when the market was low, I decided to give it a go by investing a small amount in the autonomous car industry. As I watched it steadily grow over the year, I reinvested some of my earnings in 3D printing. Although the total amount has fluctuated, it never went below what I had originally invested and today, in less than a year, amidst a global pandemic, I've already doubled my

investment. That may sound like shallow information for a Sunday sermon, but having been a minister during the 2008 economic crash, I know how important a sound economy is to all of us, and these numbers are a very encouraging sign.

Artificial Intelligence also made huge advancements in 2020, another subject some might consider mundane. I disagree and will say why in a moment. Some of you are aware of Moore's Law, that the number of transistors we are able to put into an integrated circuit naturally doubles about every two years. As this happens, their processing power grows exponentially, even as their size and prices exponentially shrink. Discovered by Gordon Moore in 1965, Moore's Law predicted it would continue to double every year until 1975 when it would reach an impossible 65,000 transistors. But it didn't stop then. Instead, in '75, Moore modified the law to say it would continue to double every two years for a while longer. But it still has not stopped. This past November, NVIDIA announced its new Cerebras Wafer Scale-Engine, an 8.5-inch chip with 1.2 trillion transistors. The largest chip before this had 54 billion transistors. That kind of processing power blows all other supercomputers out of the water.

During this same period, Google announced it had developed a quantum computer. I won't go into an explanation of quantum computing now, only to say that it will blow away the abilities of today's most powerful computers, even Cerebras with its 1.2 trillion transistors, allowing us to do things previously considered impossible. And just after Google made its announcement, China announced a quantum computer that's 10-billion times faster than it, and 100-trillion times faster than any supercomputer on Earth.

But don't underestimate the supercomputers. Last year Google's DeepMind demonstrated the ability to learn to play and soon master a game without first knowing the rules. It figured them out on its own. And OpenAI, whose mission is to ensure artificial general AI benefits all of humanity, gave its AI the headline, "Feeling Unproductive? Maybe You Should Stop Overthinking." The AI then wrote a full article on its own that became the number one article read on Hacker News.

This may not sound as promising as the news I've given you about the environment and the economy. It may even sound frightening to some because, as I began, fear so often and easily overwhelms our mindsets. But here's what AI was used for in 2020. In an effort to meet the United Nations' Sustainable Development Goals by figuring out how to eradicate world hunger, which has seen a troubling uptick during the past five years, researchers, overwhelmed by impossible amount all the data on hunger to comb through, turned over half-a-million articles for AI to examine, and it didn't disappoint. After only a week, the AI eliminated all but the most useful data, then came up with a plan to eliminate world hunger within the decade for just $14 billion a year, a drop in the bucket by today's standards. Last year AI was also used to discover drugs that can treat Cystic Fibrosis, and to predict brain aneurysms by analyzing CT scans, with 98 percent accuracy. Within the next few years, we'll have apps on our smartphones that do a better job diagnosing and treating us than our doctors can, and their services will be almost free.

I could go on to talk about 2020 advances in 3D printing magnificent houses for some of the poorest people on Earth; the Hyperloop 700 mile per hour green energy transportation system that shuttled its first passengers in 2020 and can get from New York to DC in 30 minutes; or the first company approved to sell healthy, sustainable, no-kill, lab grown meat to consumers; or, certainly, advances in vaccine science that enabled us to have coronavirus vaccines in months, not decades—the same technology that is now being used to develop vaccines to immunize us against cancer and Alzheimer's and high cholesterol. In just two months, more American's have been vaccinated than had contracted the virus during the past year. I could talk about Crisper, the gene editing technology that allowed China to translate COVID-19's Code then upload to the web so scientists everywhere could have it, and how it was also used last year to cure blindness. But our time has grown short. Yet, be assured, there are many other good and wonderful things that happened last year, right under our noses, while many of us were preoccupied with what went wrong.

One of the best things about 2020, as far as I'm concerned, was how well democracy worked in our country, not only because of the outcome of our national election, but because of the record-breaking number of voters who turned out and were able to have their voices heard. Despite false and unfounded claims of voter fraud, it was the best show of democracy in American history.

When Peter Diamandis began this year's A360 Conference, he first reminded us how things were just a hundred years ago, in 1920. Salaries were fifty-times less, life expectancy was twenty years less, and global literacy was only 32 percent. The biggest discoveries that year were insulin, the automobile headrest, the polygraph, and the overhead garage door. It was also in 1921 that Czechoslovakian author Karel Čapek coined the term "robot" in his play, "Rossum's Universal Robots," about androids built to serve us that eventually rebel against their human creators. Even then, when our most impressive inventions were lie detectors and garage door springs, our optimism for the future was overshadowed by fear.

Last year was rough in so many ways. We lost friends and loved ones, we lost jobs and businesses, and sometimes we lost hope and lost our minds. But a little 2020 hindsight reminds us that a lot of good things happened too, which should encourage us to remember that with just a little foresight, the road ahead is also looking good.