



Life After Covid:

Three Technologies
That Will Kickstart The
Global Economy

The Old Order is Ending

COVID signals the beginning of the end for Big Oil, Big Banks, Big Manufacturing, Big Pharma...as a new generation of disrupters emerges to replace them

It's less than 12 years since the financial elite drove the global economy into the sink.

And now we are back...in trouble again.

Banks, oil giants, airlines: all the chief offenders in the global financial crisis are back asking for handouts.

And governments are stepping in to support them with trillions in taxpayer money.

It's a disaster, isn't it?

12 years after the most painful economic event in history, these Old World companies have done nothing to improve their position.

Right now, banks are in deep freeze and expecting a tsunami of debt defaults that could wipe them out...

Output is down. Consumption is down. Investment is down. And most banks are expecting a recession that lasts at least two to three quarters...

Meanwhile, it's a case of "Oilmageddon" for the energy industry...

Here's Why 2/3rds Of US Oil & Gas Companies May Not Exist A Year From Now



...the fundamentals tell us that *unless something changes and fast...* much of the US energy sector is going to pursue restructuring in 2020 or get purchased by a stronger hand...

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Caves, Cars, & Clogged Pipelines – Oil Traders Turn To "Oddball Storage Locations" As Demand Hits 30-Year Lows



"The big tanks where you pull a ship in and empty the whole thing, that's all gone. What you have is pots and pans..."

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Source: Zero Hedge

And then there's the airlines...

After suffering the most abrupt and widespread cessation of economic activity in its history, the entire airline industry is on death watch.

How can they recover? It took airlines five years to recover from the 2001 terror attacks, which cost them £30.7bn.

Then came the SARS outbreak, which cost Asian airlines some \$6bn.

Now comes SARS-CoV-2, a global pandemic that will require travel restrictions for at least a year, and maybe longer.

A New Group of Industrial Titans is Emerging

"We are moving into the end-game," said Torbjorn Tornqvist, head of commodity trading giant Gunvor Group. And it's going to be a brutal few years for oil, airlines, the retail and probably a few banks.

But just as these industries are sinking into the mire...a new breed of companies is emerging during this crisis.

These companies are lean and fast moving.

And they are driven by disruptive technologies that could completely upset the industrial pecking order.

In this Monkey Darts report on Life After Covid, we are going to look at three industries.

We think they will play a big part in kick starting the global economy after the pandemic.

First, we'll look at tiny manufacturer that span out thousands of ventilation masks for hospitals in the early days of the pandemic. This company is part of a group that could flip the \$12 trillion manufacturing industry on its head.

Then there's the scientists who are using a "gene scissors" to hack the coronavirus.

This is a technology that could totally reshape medicine...instead of spending a fortune on drugs and medical treatment, we could cut off major diseases at birth, or early in life.

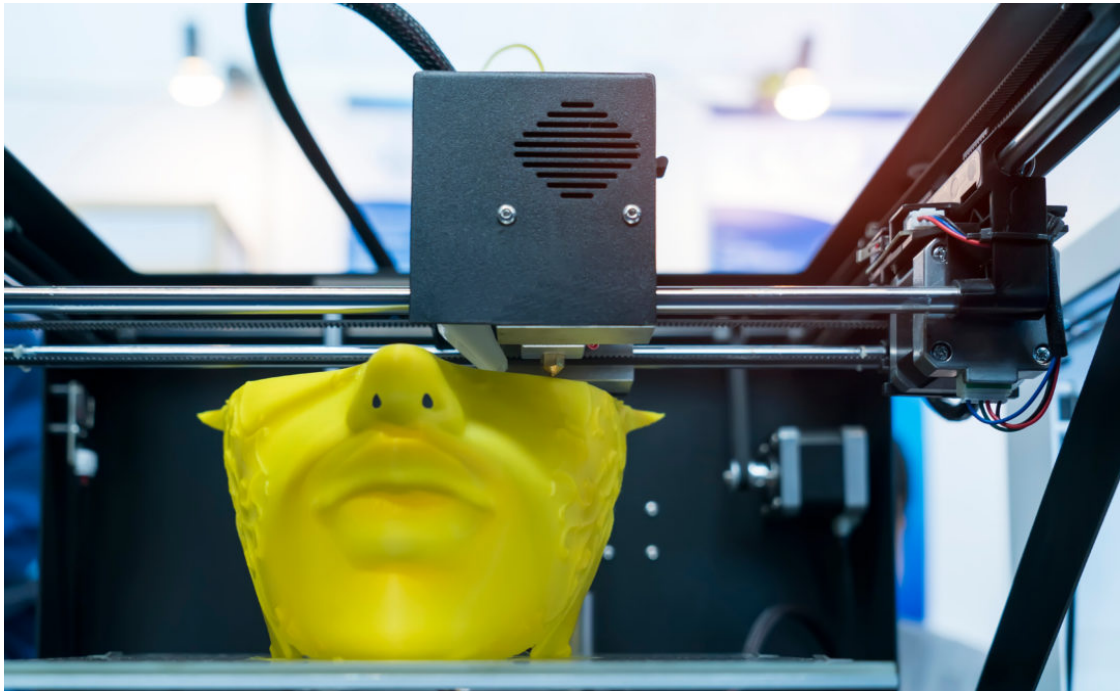
Finally: there's a new dark financial system that is attracting millions of users already. It has banks and governments so worried that they are scrambling to build similar systems of their own.

All these technologies might have taken ten years to reshape society. But they are using this crisis to accelerate their plans at a fierce pace. As Lenin said nothing can happen for decades, and then decades can happen in weeks.

Let's start at the epicentre of this crisis...

THE COVID EXPERIMENT:

How 3D Printing is Disrupting the \$12 Trillion Manufacturing Industry



Source: Shutterstock

As the scale of the Covid disaster became clear in early February, the British government issued an urgent request.

With hospitals running short of vital equipment, they asked British Industry to come to their aid.

Now was the time to put the best engineers and brains to work. To open factories and develop emergency supplies to see us through the unfolding disaster.

The priority: to produce face shields, nasal swabs and ventilators.

And they had to be produced quickly.

The response was very impressive. In just ten days, Dyson spun out a design for a brand-new ventilator. A consortium led by Ford, Airbus and McLaren announced that it would scale up production for 10,000 ventilators.

The Citizen Supply Chain

But perhaps the most impressive response came from smaller manufacturers...

All around the country, engineers at universities, labs and tech firms have responded to the clarion call.

These companies do not have the resources of Ford or McLaren, but in a matter of days, they have managed to spin out face shields, visors, swabs and even new designs for makeshift ventilators.

How? By using 3D printing machines.

These devices are proving invaluable during this crisis.

For example, Dr Pashneh-Tala and his team at University of Sheffield have managed to make 600 face shields for healthcare workers, with materials that cost just £1.80.

Or take the example of Gary Riches (pictured below), a software engineer from Hertfordshire.



Source: Gary Riches, BBC
<https://www.bbc.co.uk/news/health-5201696>

So far, he has made 150 face shields on his two 3D printers at home, and says he has delivered 39 of them to community nurses and midwives locally.

In fact, thousands of 3D-printed masks have been made and donated to hospitals, GPs, pharmacies and paramedics.

And some of these devices are quite sophisticated.

In Belgium, 3D-printing company **Materialise** developed a ventilation mask, just when they were needed most.

The design was ingenious.

The device was made of standard hospital equipment that was already available. And it worked by creating pressure in the lungs in order to improve your breathing.



Source: Materialise
<https://www.materialise.com/en/press-releases/materialise-develops-3d-printed-oxygen-peep-mask-to-address-shortage-of-ventilators>

The mask is already being used in hospitals to reduce the time that patients need to spend on a ventilator.

And 3D printing companies in many other countries are responding too.

In Ohio, 3D printing company **Formlabs** is dedicating 250 printers at its factory to manufacture 100,000 nasal swabs for COVID-19 tests.

In Silicon Valley, **Carbon** says it is on hand with its network of contract manufacturing partners to print designs for face shields and swabs for coronavirus test kits.

3D Printing is Scaling Up in a Big Way During This Crisis

This is a heartening story. And it's one that I think will continue for long after this crisis.

Because these 3D printing machines are not just useful for producing medical equipment. They are also being used to produce complicated parts for cars, planes, trucks, rockets and much else besides.

And over the next few years, I can see the industrial use cases are going soaring from here.

For one thing this method of manufacturing is fast.

You start with a simple design.

And then use the 3D printer to execute the design: printing out material one layer at a time.

By building objects layer-by-layer instead of using a mold, 3D printing dramatically shortens the time between design and production.

We've seen that with the medical equipment that the citizen army has churned out.

But it's also true at the big end of manufacturing: Audi, for example, has used 3D printing to reduce prototyping and product verification lead times by 50%.

Secondly, these machines are ideal for designing a new generation of machines that can help reduce carbon emissions.

Airbus recently used Autodesk's generative software to design a new 3D printed aircraft dividing wall.

The resulting part was 45% lighter than the current partition.

And, if used on the full backlog of A320 planes, could save 465,000 metric tons of CO2 emissions per year.

That is the equivalent of taking 96,000 cars off the road: a huge gain.

Airbus says that they expect 3D printing to bring 50% in weight savings and 60-70% in cost savings to its A350 aircraft parts.

And there is huge scope for redesigning many of the machines that we use - aircrafts, cars, buses, farm machinery - to radically reduce our carbon emissions.

“Reshoring”: Biggest Change to Global Economy in Decades

But the biggest impact from 3D printing could be on the job market.

You see, for the last few decades we have relied on a very particular brand of capitalism.

In this system, you take jobs from developed countries such as the UK and America, and you outsource them to countries where labour is cheap, such as China.

This is a great model for companies.

They can slash costs.

And produce cheap goods...

Which then helps keep a lid on inflation at home.

More than half of the world's iPhones are made at a sprawling Foxconn factory complex in Zhengzhou, China.

This has allowed Apple to produce phones that you and I can afford.

But the 2008 global financial and economic crisis marked the beginning of the end of this era of hyper-globalization.

Since then politicians have made huge gains at the polls by promising a return of jobs from abroad.

And companies have grown highly concerned too. They realise that they are too dependent on foreign suppliers.

The system relies on the smooth working of long, complex supply chains that can easily be disrupted.

As the pandemic hit, Apple, Tesla, Amazon and many of the world's biggest manufacturing titans simply ground to a halt.

And so rather than await a return to business as usual, advanced-economy companies are shifting their focus.

They no longer consider the cost savings of offshoring to be worth the risk.

And we could see a massive shift towards widespread 'reshoring' - with supply chains cut and jobs returning to UK manufacturing.

A study by the University of Munich predicts that the increase in uncertainty from the COVID-19 pandemic will reduce global supply-chain activity by 35.4%.

A \$90 Billion Industry by 2025

3D printing would be a big part of this story.

Take the example of **Autodesk**, who have been working with cars and airlines to produce radically new machines and parts.

Like the General Motors seat bracket (pictured below) which no team of human design engineers could have come up with



Source: YouTube

Using generative design and additive manufacturing, GM was able to consolidate the eight different components of a small but important part—a seat bracket, where seat belts are fastened—into one 3D-printed part.

It looks weird like something an alien might design.

It's also 40% lighter than GM's current seat brackets and 20% stronger.

It is the creation of an **Autodesk** generative design software system, which can be printed and developed in a fraction of the time it takes to develop traditional car parts.

Having been fed the requirements of a piece for performance and materials the software can simulate the most efficient proportions offering a set of design options that no human could offer in months let alone hours of work.

The design is encoded as a set of competing 'genes' within a Darwinian survival-of-the-fittest algorithm that cycles through millions of design choices testing configurations and learning from each iteration what works and what doesn't.

The GM seat bracket is a start and we think that this type of generative design and printing will utterly change manufacturing.

In fact, Autodesk has also been working with biomedical engineers to design surgical implants.

They are interested in knee hip-joint and vertebra parts that are organically structured to perform better in the body.

The parts have lattice-like structures made of material that can attach to bone and heal quickly: improving comfort and performance for the patient.

Meanwhile, **Carbon** has pioneered a way of 3D printing which uses light and oxygen to rapidly produce products, including teeth.

And **Organovo** has been working to 3D print new organ tissue that will be ideal for treating chronic liver failure, a disease that attacks millions of people every year.

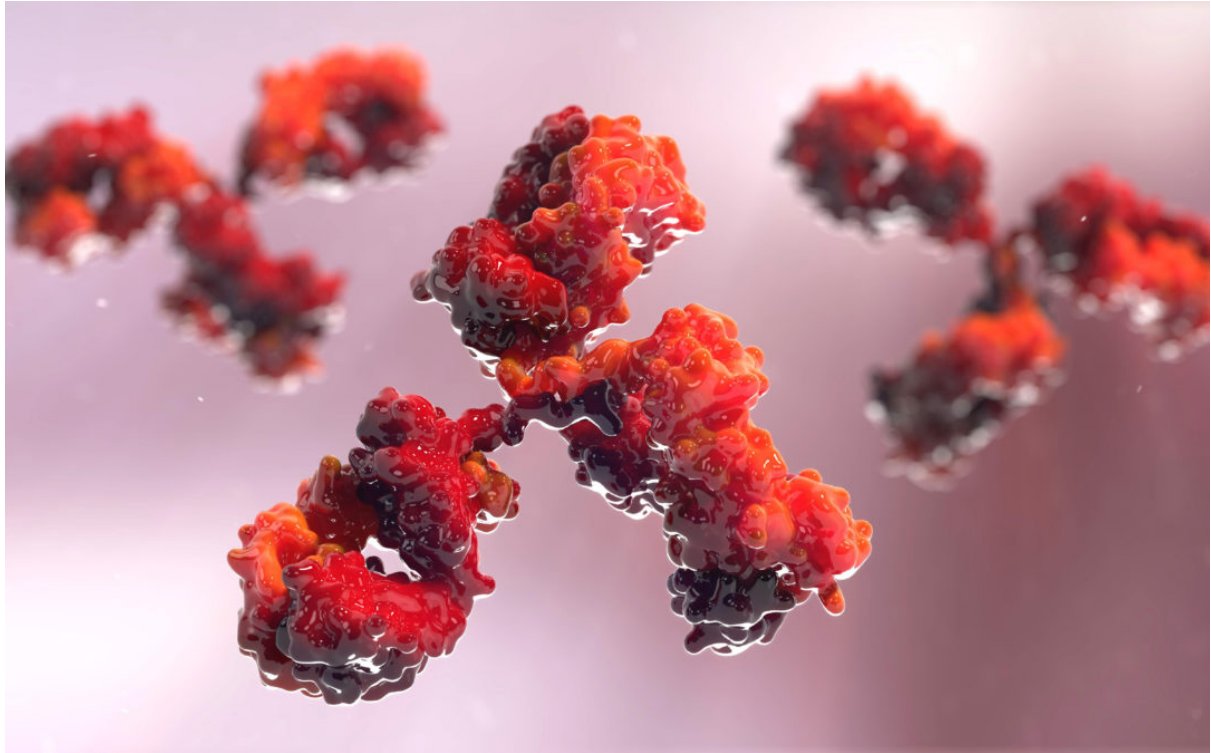
Leading specialist researcher Wohlers Associates sees the 3D printing market swelling from \$20 billion in 2021 to over \$90 billion in prospect by mid-decade.

Other analysts' estimates range from \$12 billion to \$490 billion for the next five to ten years.

Companies such as Autodesk, Carbon, Materialise and Organovo look hugely promising as they drive a massive overhaul of a global manufacturing system that has been horribly exposed over the last few months.

But that pales in comparison to the disruption that is coming in medicine...

Could Crispr Kill Off the Next Pandemic?



Source: Shutterstock

Tim Abbott, a PhD candidate at Stanford University, stared at the screen in disbelief.

For weeks he had been working on a wild experiment, led by his mentor Prof Stanley Qi.

Their lab had taken a new genetic weapon - called “PAC MAN” - and used it to attack a synthesised sample of the coronavirus.

It was a shot in the dark, really. PAC MAN had been used on a wide variety of viruses in the past. They had even found a way to attack a strain of the common flu.

Could it work on Sars-COV-2?

The chances were slim. This was a virus with 30,000 nucleotides. And the PAC MAN system - named after the famous arcade game - was only capable of targeting regions of 22 nucleotides at a time.

And yet the results were there on the screen.

After attacking Sars-COV-2 with PAC MAN, they had managed to completely disable the virus.

Abbott called over Marie La Russa, a research scientist managing the project, to verify what he'd seen: a 90 percent reduction in the amount of virus in the solution.

If effectively delivered, this kill rate might be enough to even stop the disease in a human.

How does it work?

How to Hack the Coronavirus

Well if you have been reading Monkey Darts over the last year, you will probably have heard of CRISPR.

This new genetic tool is being used to tweak the genes of everything from mosquitoes to plants to livestock.

And increasingly, it is being used to fight diseases in humans as well.

In this case, "PAC MAN" stands for Prophylactic Antiviral Crispr in huMAN cells.

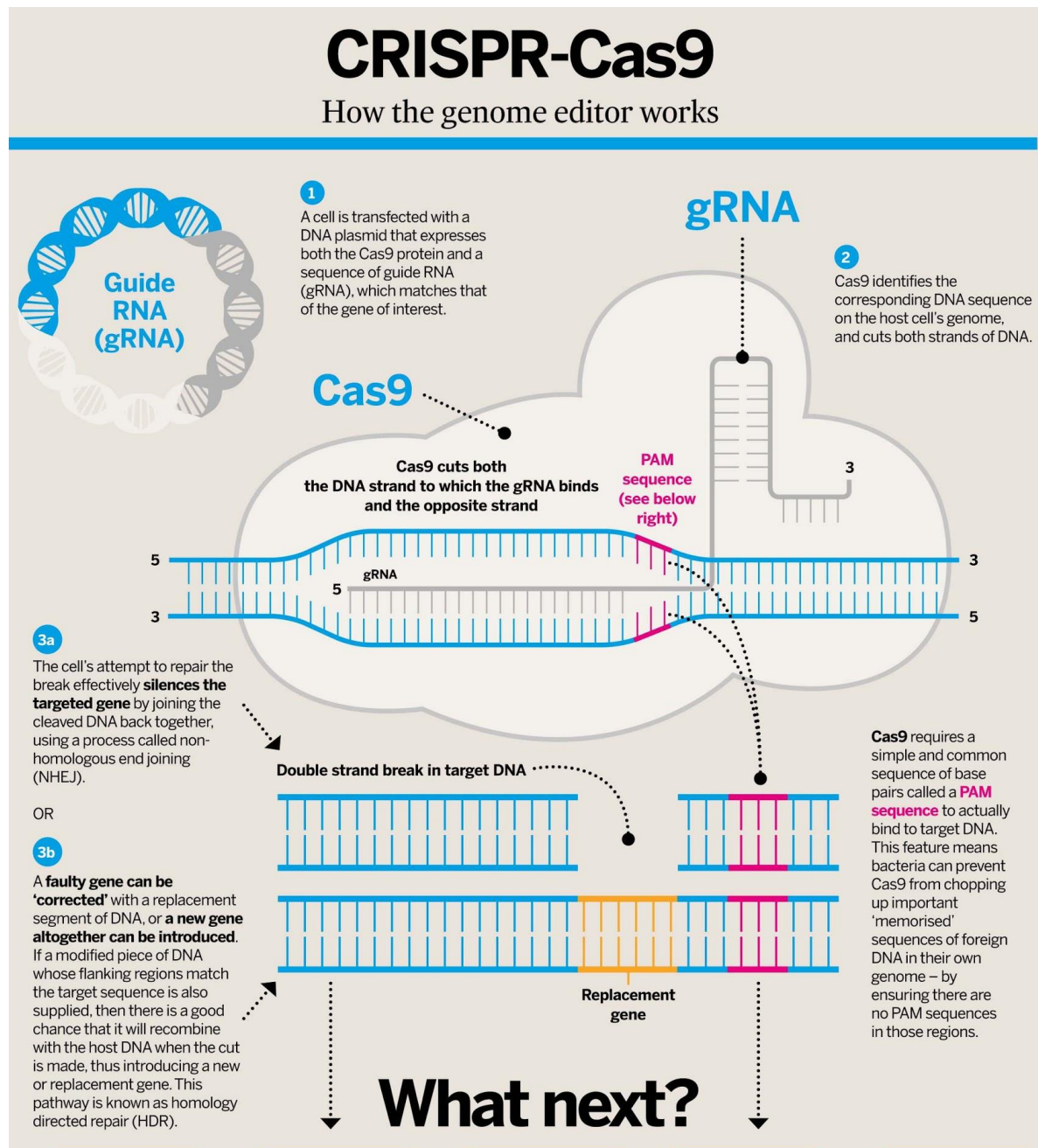
It is composed of two parts: first, the body, or the 'guide RNA', that isolates the portion of the DNA that a researcher wishes to manipulate and, second, the tool, or 'nuclease', that performs an operation on that stretch of DNA

You have an enzyme which can attack the virus.

And attached to that, a strand of RNA which works as a guide.

This "guide RNA" searches the virus for a match.

And when it finds it, the enzyme will get to work, making a series of cuts in the virus at the desired spot.



It's a delicate process.

To attack the coronavirus, for example, it took a huge amount of DNA analysis and experimentation to locate the best spots to make the cuts.

But compared to other editing techniques, CRISPR is fast, cheap and increasingly accurate.

As senior scientist Qi explains, the CRISPR system managed to radically decrease the concentration of the virus inside the human cells.

And, remarkably, it also blocked the production of the viral proteins: preventing it from making copies of itself.

How This “Gene Scissors” Could Kill Off the World’s Most Deadly Diseases

The availability of CRISPR is a serious breakthrough for medicine.

It points to a future in which we are able to adapt to pandemics and disease by using targeted genetic tools.

It’s a future in which we might intervene early in the treatment of disease. Instead of spending a fortune on drugs to recover from an illness, it will make sense to have your genes edited earlier in life.

We might tweak our genomes to rid children of diseases such as cystic fibrosis or sickle cell disease for example. Several leading CRISPR companies – including **Editas** and **Intellia Therapeutics** are already working on genetic therapies.

And over the next decade as CRISPR improves, we could see this tool used by a wider section of society.

- Fertility doctors could use CRISPR to choose the colour of a child’s eyes.
- In sports, it might be used to boost metabolism and recovery time.
- Instead of waiting a year for a vaccine, you might use CRISPR to boost your immunity before the next pandemic hits.

The key issue will be safety...

This technology is still in its infancy.

For example, in studies of mice and human cells, we found that in around a fifth of cells, CRISPR causes deletions or rearrangements that we can't predict.

Some of these changes were more than 100 DNA letters long (and sometimes thousands of letters long).

And the risk is that if we use this technology in humans, we might cause a series of mutations that we didn't expect.

These mutations could even be passed on to children, preserving the mistakes and mutations in the gene line for ever.

But this is also a technology that is improving.

A Breakthrough Human Trial

In fact, on April 27th, we saw a major breakthrough when a human trial of cells modified with CRISPR technology showed that the treatment was safe and lasting.

A team led by You Lu at the West China Hospital in Chengdu took immune cells from people with aggressive lung cancer and applied CRISPR to them to disable a gene called *PD-1*.

Usually, the PD-1 protein sends signals that keep immune cells from mounting an attack against the body's own tissues, but active *PD-1* can open the door to the spread of cancer.

The team injected each study participant with edited versions of their own immune cells.

Participants experienced only mild side effects, and potentially dangerous mutations caused by gene editing — the researcher's main fear — were limited."

The study used a recently developed method of editing with CRISPR that offers far greater control over genome edits.

This alternative method, called “prime editing”, improves the chances that researchers will end up with only the edits they want.

The tool also seems capable of making a wider variety of edits, which might one day allow it to be used to treat the many genetic diseases that have so far stymied gene-editors.

David Liu, a chemical biologist at the Broad Institute of MIT, estimates that **prime editing might help researchers tackle nearly 90% of the more than 75,000 disease-associated DNA variants listed in ClinVar**, a public database developed by the US National Institutes of Health.

CRISPR v COVID

In fact, it’s staggering just how useful CRISPR has been during this crisis...

Scientists from around the world are applying this tool to fight the virus on several fronts.

A group of scientists at Harvard have used CRISPR to develop a rapid-fire test for the virus.

They placed thousands of droplets from patient samples and detection mixtures onto a chip.

This single chip can detect a single type of virus in more than 1,000 samples at a time.

And the idea is that this test will enable clinicians to see if patients are harbouring multiple infections, to rule out a whole panel of diseases very quickly, or to test a large population of patients for a serious infection.

The entire protocol, from extraction to results, takes under eight hours.

Meanwhile, **Mammoth Biosciences**, a diagnostics company that is capitalising on CRISPR's ability to find specific sequences of genes, claims to have developed a test that can deliver results even faster.

And what's more: test results can be ready within 40 minutes.

The team was researching a CRISPR-based Lyme disease test when the pandemic struck, and they quickly shifted to studying the coronavirus.

They say their clinical-lab-based CRISPR test will cost \$1 per test, and the cost of a home-based test will be under \$5.

As the pandemic unfolds, CRISPR is being used to test, track and treat the virus.

And at *Monkey Darts*, we think CRISPR will also be vital in other areas too. Take farming...

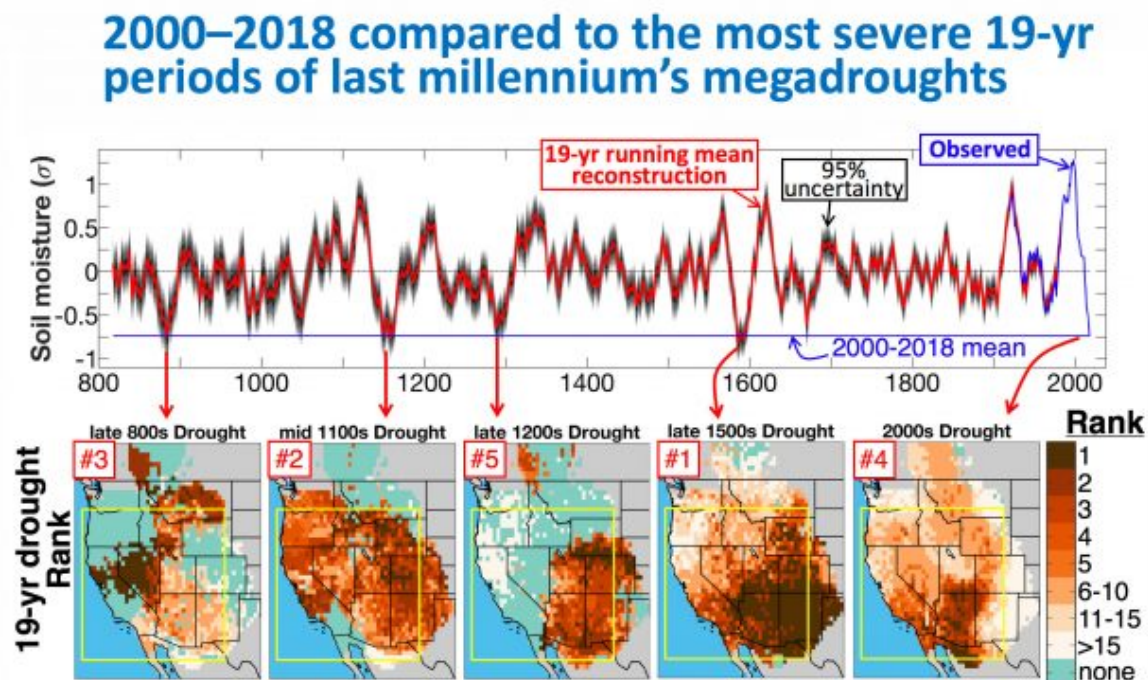
After Covid: “Survivor Crops” Could Save Millions From Famine Over the Next Few Years

Right now, there are huge stresses being placed on agriculture.

In fact, parts of the US and Mexico could be in line for a "megadrought" in the very near future, scientists warn.

Based on an analysis of precipitation levels since the turn of the century, and how they match up with soil moisture levels recorded by tree rings over the last 1,200 years, future modelling suggests the southwestern North American (SWNA) region could see a drought that's worse than any in recorded history.

It's possible that a megadrought has already started.



Source: Adapted from Williams et al., Science, 2020
<https://cdn.geekwire.com/wp-content/uploads/2020/04/200416-charts.jpg>

The good news is that CRISPR is increasingly being used to create crops that are resistant to drought and climate stress.

Since it was first tested on tobacco production in 2013, CRISPR has been used on a range of crops, from wheat and rice to oranges and tomatoes; and for a whole spectrum of applications — from boosting crop resistance to pests, to improving nutritional contents.

Indigo Agtech, for example, specialises in making “survivor crops”: which will be badly needed in the fallout from this crisis.

Indigo is using naturally occurring microbes instead of genetic modifications or chemicals to help plants survive and grow in rough conditions.

Their beneficial microbes can be applied as a liquid or powder coating to seeds (a standard process in agriculture already).

In 2016 and 2017, Indigo found its microbes resulted in an 11% yield improvement and a 14% yield improvement on cotton farms in drought-stricken Texas.

Meanwhile, **Syngenta**, the crop giant, sees CRISPR-modified corn as a big opportunity in China, which grows more hectares of corn than any other crop.

According to Science Magazine...

"Yields per hectare are only 60% of those in the United States because corn ear worms often weaken Chinese crops.

A fungus thrives in the weakened plants, producing a toxin that makes the resultant ears unfit for animal feed.

As a result, China must import a great deal of corn. (According to USDA, 82% of U.S.-grown corn has been engineered to have a bacterial gene that makes it resistant to earworms.)

*CRISPR could allow **Syngenta** to quickly modify the corn genomes to introduce insect resistance or other traits, bolstering China's food supply while transforming agribusiness there."*

Crops, disease, livestock...almost anything with a genetic profile can be tweaked and studied using CRISPR.

And many of the leading companies in medicine and agriculture will be those that can store and rewrite genetic code.

In fact, according to Ark Invest, CRISPR could create a string of new industries that explode in size over the next few years

These include:

- A \$250 billion annual global CRISPR-enabled CAR-T addressable market
- \$75 billion in annual global revenue potential for addressing all 10,000 monogenic diseases
- \$1.9 trillion global addressable market for monogenic diseases on a prevalence basis
- \$170 billion in agriculture-crops, livestock, and aquaculture—value creation by 2025
- 585 trillion increase in calorie production, feeding an additional 800 million people by 2025

And there are several that we track closely.

We've been writing about the pioneers in this field in our weekly issues of Monkey Darts.

It's a story that is developing with frightening speed. But it has to be said, there is also a dark side to this technology...

Could a Rogue Scientist use CRISPR to Launch a Fresh Pandemic?

As CRISPR becomes more widely available, it will increasingly be used for nefarious purposes.

It doesn't cost more than a few thousand pounds to set up your own CRISPR Lab. And there is a serious risk that a biohacker could attempt to buy DNA sequences of the coronavirus, tweak it using CRISPR, and then launch a fresh wave of outbreaks.

It's a scenario that has been spelled out in several books and films I've seen recently.

As writer Neil Baer asks on Stat News this week:

"What's to stop a rogue scientist from using CRISPR to conjure up an even deadlier version of Ebola or a more transmissible SARS?"

When Netflix agreed to make the third season of "Designated Survivor," moving it from ABC, I pitched a story line about CRISPR. In it, right-wing fanatics use CRISPR to target people of colour by infecting their melanocytes — the cells that produce skin pigment. Using the tool this way sounds far-fetched.

Yet the idea of ethnic bioweapons has been around for years, particularly during apartheid in South Africa. Scientists there tried to develop weapons to target the black population under a secret mission called Project Coast."

Investors are Flocking to This New Financial Platform: Bringing Stock Investing and Currencies to Millions of the ‘Unbanked’ for the Very First Time



There is one technology, however, that is really thriving during this crisis.

Cryptocurrencies emerged in the fallout of the financial crisis in 2008.

And since then millions of people have used these digital currencies to trade, build wealth, make payments and invest in a wild variety of emerging companies.

A New Financial System is Booting Up

We are particularly interested in one cryptocurrency - **Ethereum** - which is fast emerging as a platform where people can trade currencies, buy shares, pay rent and even store their wealth.

It's like a new financial system, all be itself.

How does it work?

Think of Ethereum as an early version of the internet.

Anyone with an idea for a company can set up a website and develop an application on Ethereum for everyone to use.

So far that has included online gambling music streaming platforms lenders publishers...all sorts of stuff.

In order to encourage these projects Ethereum has its own native currency – “ether” or just Ethereum – which people use to stake their investment.

It has been a wild ride so far. Ethereum has spiked from a few cents to \$1,380 and back down to \$200 again.

In that time the system has experienced a wide variety of problems.

There have been a few large hacks – with millions disappearing overnight.

There has been an enormous amount of fraud.

And the system has struggled to scale: Ethereum can process around 15 transactions per second which is some way lower than the 45,000 processed by Visa.

But the Ethereum platform will be enormously useful for financial institutions.

The benefit of building on Ethereum is that it allows you to execute transactions automatically without the need for a middleman.

Ethereum can be used to create so-called “smart contracts” – essentially computer code that is automatically triggered when certain conditions are met.

This makes it suitable for all kinds of business transactions that involve payments for example...

Stablecoins: A New Global Currency Market

Take the example of Bitspark. This is a project that is launching a cryptocurrency that is pegged to the Hong Kong Dollar. Why would we need that?

Well let's say that you wanted to send money to a relative in Hong Kong.

You could use a money transfer company such as Western Union or Moneygram or through a bank transfer.

But you'll pay transfer fee charges, currency exchange rates and other charges.

It will also take a few days for the money to reach the payee.

But with a cryptocurrency you can send the money in a matter of minutes. And if there is enough activity on the platform, you'll pay next to no fees. For example, over \$60m of Litecoin was recently moved for fifty cents.

The trouble is that cryptocurrencies are incredibly volatile.

Why send £10,000 today if it's going to be worth £8,000 by the end of the week?

So Bitspark have launched a currency that is pegged to the stable Hong Kong dollar.

Rather than floating freely on the market this digital currency will rise and fall like a stable currency.

It's what is called a "stablecoin".

Buyers can pay one dollar to receive one digital coin which they can later redeem for the dollar if they choose to cash out.

That way you get the best of both worlds: a fast and cheap way to send money and also the stability of a major currency.

You can see how they might be useful for a global bank.

It could allow them to execute huge trades and transfers cheaply and quickly.

It would also be useful for people sending remittances – a huge market that is ripe for disruption.

You can also see a world where any bank will issue its own coin for trading and exchange purposes.

And banks are not the only companies lining up.

You could have a company such as Apple release Applecoin. The advantage for Apple being that they get a new revenue stream out of having their own currency.

And they also get perfect information about who is buying what and where around the world.

If you think of the biggest companies in the world they are almost all tech companies. And apart from advertising the main product they have is data on their users.

So, if you can get a better picture of how money works that's massive.

Right now, there are about 120 stablecoin projects under way according to Stable Report, a crypto research group.

While they represent a small fraction of the wider cryptocurrency market the value of all stablecoins stands at about \$3bn and their issuers have attracted some \$350m in venture capital funding to date from the likes of Google Ventures and Andreessen Horowitz.

A New Wave of Stock Investments

Then you have stock tokens: which strikes us as a development that could be even more promising than stablecoins.

The idea is that companies can issue stock: allowing investors around the world to invest in blue chip companies in the US.

This is already happening with the DX. Exchange – which launched recently and offers support for the trading of 10 cryptocurrencies and 10 Nasdaq stocks implemented on the Ethereum blockchain.

These digital stocks included Facebook, Amazon, Apple, Tesla Netflix and Google.

Each digital token is backed by shares in the company.

And because the tokens are divisible you can pay very small amounts each month in these shares.

So this could make stocks accessible to an audience of global investors who don't have broker accounts or don't have ready access to US markets or weren't inclined before.

The popularity of Bitcoin in countries such as China, Korea, Venezuela, Argentina and elsewhere shows just how quickly a global marketplace like this can materialise.

These tokens will be regulated assets that come with a high level of trust. You will have new middle classes in Asia and Africa that will be able to invest in quality assets for the first time. It allows 24-hour trading. And people won't need bank accounts to gain access to it.

DX is based in Estonia though it's backed by Nasdaq but I'm told there are US exchanges preparing to launch similar ventures in the coming months.

Ethereum is “a Machine for New Decentralised Finance”

This platform is arriving at just the right time.

Right now, the major banks in the UK and Europe are bracing for a wave of defaults.

According to Zero Hedge:

HSBC Holdings and Banco Santander have taken the biggest hits so far among banks struggling to contain the impact of the coronavirus on their loan books, with the U.K.-based lender expecting as much as \$11 billion of damage this year because of the outbreak.

HSBC slashed its first-quarter profit in half on Tuesday after reserves for bad loans surged fivefold - prompting Europe's largest bank to deliver a stark warning on the deep and lasting impact of coronavirus on the financial sector.

Loan provisions jumped 420% to \$3BN, on track to hit the highest annual level since the financial crisis, as the bank prepared for a flood of bankruptcies and defaults caused by global lockdown measures to control the pandemic.

From here, banks will see a wave of defaults from retail, restaurants, airlines....

And that will surely drive investors towards decentralised systems of finance that are emerging with Bitcoin and Ethereum.

There is huge scope for cryptocurrencies to eat into the system that has been built by the big banks.

Stablecoins and tokenised securities are becoming popular applications.

And many countries are using the crisis to prepare digital currencies of their own.

In May, China announced a trial of a digital yuan in four major cities – including payments of local government employees' transportation subsidies.

And this space will continue to develop from here. As Silicon Valley legend Marc Andressen points out:

“The payments system we use today was designed more than a half-century ago, and the way we transfer and distribute value has lots of room for improvement.

Transferring actual value quickly and cheaply without a third party, in much the same way we currently transfer data like emails or photos, will soon be technologically possible at scale.

And for the rest of us who use legacy payment options like banks and credit cards that are “good enough,” new systems could provide a much needed upgrade, significantly reducing friction (unnecessary fees, call centers, faxes, delays, privacy breaches, and generally antiquated processes) and providing a more delightful and modern user experience.”

In the long run these cryptocurrencies will become global reserve currencies, rivalling the pound and the dollar.

We don't know which coins it will be. That's part of the fun of investing in cryptocurrencies.

But we believe Bitcoin and Ethereum will be central to the development of this new system.

Join Monkey Darts And Keep Up To Date With The Technologies Transforming Society

You'll read more about this in six month's time in the mainstream press.

These stories are moving so fast the people are still catching up.

It always happens during a major meltdown...

Without a series of global cholera outbreaks in the 19th century, we would never have developed a new modern sewage system.

Joseph Bazalgette designed a system that could carry waste water safely downriver and away from drinking supplies.

It totally changed our cities.

More recently, the Ebola epidemic created vast networks of scientists that we are preparing to share notes and work together to fight disease.

That event has helped make this coronavirus outbreak far less painful.

If you'd like to find out more about stories and companies like these, then keep reading *Monkey Darts*.

Every week, we dig into the most exciting stories that have yet to be picked up by the mainstream press.

This involves a lot of leg work.

We speak to everyone from scientists to the big investors backing these technologies...the venture capitalists to early stage investment funds.

Recently, we've written about brain implants, quantum computers, new materials that will be used to make computer chips 1,000 times faster, drug research that is freeing people with depression and addiction problems from years of torture.

We like to be contrarian...and to find the stories that others are missing.

If you want to get up to speed, then keep reading Monkey Darts: it lands in your inbox five days a week.

Our aim is to entertain, inform and ultimately help you to make more from your investments.

And if you know anyone who might be interested in this report, then by all means send it on.

We'd love to build the community of readers who are interested in breakthrough technologies.

They can sign up to Monkey Darts here:

<https://www.monkeydarts.co.uk/email-newsletter>

And we will send them this report for free as a welcome present.

Best regards,

Alex, Robert and Nick

The Monkey Darts team

Disclaimer

It is our intention to be as accurate in fact, detail and comment as possible. However the publishers and their representatives cannot be held responsible for any error in details, accuracy or judgment whatsoever. This report is produced on this understanding.

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