FUTURE NEWS

TO CONNECT, TO INFORM AND TO INSPIRE

IN THIS EDITION

A PANDEMIC IN RETROSPECT
LOOKING BACK ON THE CORONAVIRUS FROM 2050

What will we say at that point, after we have finally learned what we so desperately needed to know?

by Hazel Henderson and Fritjof Capra

Imagine, it is the year 2050 and we are looking back to the origin and evolution of the coronavirus pandemic over the last three decades. Extrapolating from recent events, we offer the following scenario for such a view from the future.


As we move into the second half of our 21st century, we can finally make sense of the origin and impact of the coronavirus that struck the world in 2020 from an evolutionary systemic perspective. Today, in 2050, looking back on the past 40 turbulent years on our home planet, it seems obvious that the Earth had taken charge of teaching our human family. Our planet taught us the primacy of understanding of our situation in terms of whole systems, identified by some far-sighted thinkers as far back as the mid-nineteenth century. This widening human awareness revealed how the planet actually functions, its living biosphere systemically powered by the daily flow of photons from our mother star, the Sun.

Eventually, this expanded awareness overcame the cognitive limitations and incorrect assumptions and ideologies that had created the crises of the twentieth century. False theories of human development and progress, measured myopically by prices and money-based metrics, such as GDP, culminated in rising social and environmental losses: pollution of air, water and land; destruction of biological diversity; loss of ecosystem services, all exacerbated by global heating, rising sea levels, and massive climate disruptions.

These myopic policies had also driven social breakdowns, inequality, poverty, mental and physical illness, addiction, loss of trust in institutions — including media, academia, and science itself — as well as loss of community solidarity. They had also led to the pandemics of the 21st century, SARS, MERS, AIDS, influenza, and the various coronaviruses that emerged back in 2020.

During the last decades of the 20th Century, humanity had exceeded the Earth's carrying capacity. The human family had grown to 7.6 billion by 2020 and had continued its obsession with economic, corporate, and technological growth that had caused the rising existential crises threating humanity's very survival. By driving this excessive growth with fossil fuels, humans had heated the atmosphere to such an extent that the United Nations (UN) climate science consortium, IPCC, noted in its 2020 update that humanity had only ten years left to turn this crisis situation around.
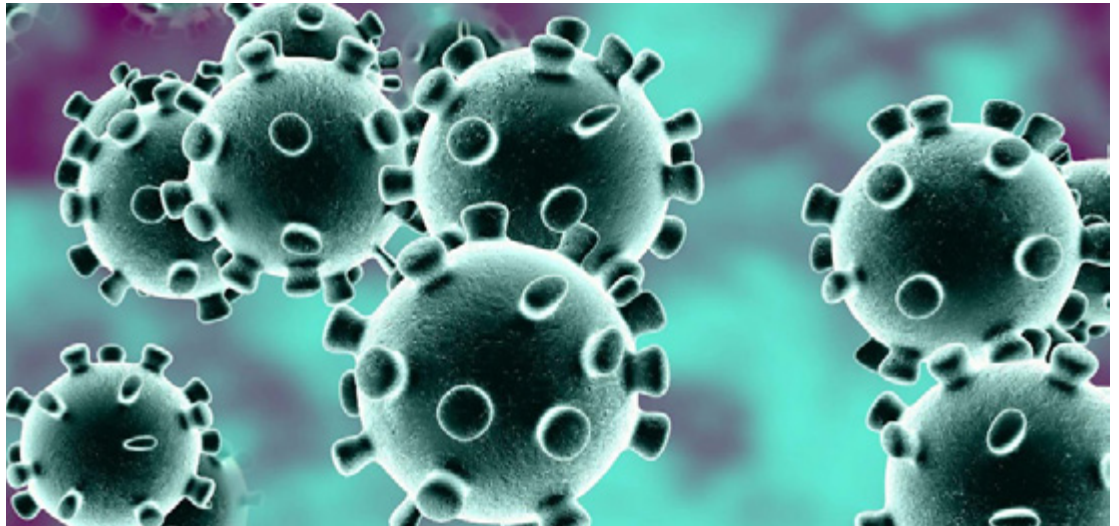
As far back as 2000, all the means were already at hand: we had the know-how, and had designed efficient renewable technologies and circular economic systems, based on nature's ecological principles. By 2000, patriarchal societies were losing control over their female populations, due to the forces of urbanization and education. Women themselves had begun to take control of their bodies, and fertility rates began to tumble even before the turn of the twenty-first century. Widespread revolts against the top-down narrow economic model of globalization and its male-dominated elites led to disruptions of the unsustainable paths of development driven by fossil fuels, nuclear power, militarism, profit, greed, and egocentric leadership.

Military budgets which had starved health and education needs for human development, gradually shifted from tanks and battleships to less expensive, less violent information warfare. By the early 21st century, international competition for power focused more on social propaganda, persuasion technologies, infiltration and control of the global internet.

In 2020, the coronavirus pandemic's priorities in medical facilities competed with victims in emergency rooms, whether those wounded by gun violence or patients with other life threatening conditions. In 2019, the nationwide US movement of schoolchildren had joined with the medical profession in challenging gun violence as a public health crisis. Strict gun laws gradually followed, along with rejection of gun manufacturers in pension funds' assets crippling the gun lobby and, in many countries, guns were purchased back by governments from gun owners and destroyed, as Australia had done in the 20th century. This greatly reduced global arms sales, together with international laws requiring expensive annual licenses and insurance, while global taxation reduced the wasteful arms races of previous centuries. Conflicts between nations are now largely governed by international treaties and transparency. Now in 2050, conflicts rarely involve military means, shifting to internet propaganda, spying and cyber warfare.

By 2020, these revolts exhibited all the fault lines in human societies: from racism and ignorance, conspiracy theories, xenophobia and scapegoating of "the other" to various cognitive biases — technological determinism, theory-induced blindness, and the fatal, widespread misunderstanding that confused money with actual wealth. Money, as we all know today, was a useful invention: all currencies are simply social protocols (physical or virtual tokens of trust), operating on social platforms with network effects, their prices fluctuating to the extent that their various users trust and use them. Yet, countries and elites all over the world became enthralled with money and with gambling in the "global financial casino," further encouraging the seven deadly sins over traditional values of cooperation, sharing, mutual aid, and the Golden Rule.

> *"Viruses, which had lived in symbiosis with certain animal species, jumped from those species to others and to humans, where they were highly toxic or deadly.*

Scientists and environmental activists had warned of the dire consequences of these unsustainable societies and retrogressive value systems for decades, but until the 2020 pandemic corporate and political leaders, and other elites, stubbornly resisted these warnings. Previously unable to break their intoxication with financial profits and political power, their own citizens forced the re-focus on the well-being and survival of humanity and the community of life. Incumbent fossilized industries fought to retain their tax breaks and subsidies in all countries as gas and oil prices collapsed. But they were less able to buy political favours and support of their privileges. It took the global reactions of millions of young people, "grassroots globalists," and indigenous peoples, who understood the systemic processes of our planet Gaia — a self-organizing, self-regulating biosphere which for billions of years had managed all planetary evolution without interference from cognitively-challenged humans.

In the first years of our twenty-first century, Gaia responded in an unexpected way, as it had so often during the long history of evolution. Humans' clear-cutting large areas of tropical rainforests and massive intrusions into other ecosystems around the world had fragmented these self-regulating ecosystems and fractured the web of life. One of the many consequences of these destructive actions was that some viruses, which had lived in symbiosis with certain animal species, jumped from those species to others and to humans, where they were highly toxic or deadly. People in many countries and regions, marginalized by the narrow profit-oriented economic globalization, assuaged their hunger by seeking "bush meat" in these newly exposed wild areas , killing monkeys, civets, pangolins, rodents, and bats as additional protein sources . These wild species, carrying a variety of viruses, were also sold live in "wet markets," further exposing ever more urban populations to these new viruses.
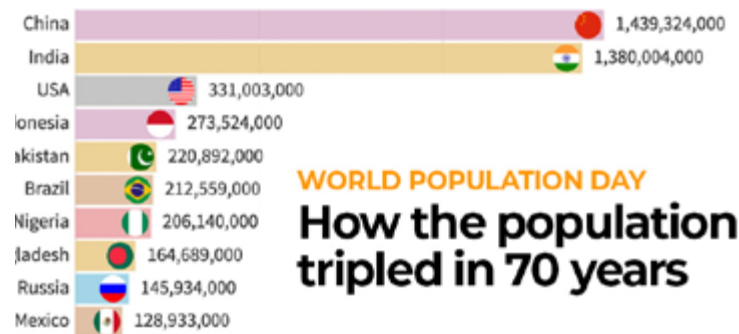
Back in the 1960s, for example, an obscure virus jumped from a rare species of monkeys killed as "bush meat" and eaten by humans in West Africa. From there it spread to the United States where it was identified as the HIV virus and caused the AIDS epidemic. Over four decades, it caused the deaths of an estimated 39 million people worldwide, about half a percent of the world population. Four decades later, the impact of the coronavirus was swift and dramatic. In 2020, the virus jumped from a species of bats to humans in China, and from there it rapidly spread around the world, decimating world population by an estimated 50 million in just one decade.

From the vantage point of our year 2050, we can look back at the sequence of these viruses: SARS, MERS, and the global impact of the various coronavirus mutations which began back in 2020. Eventually such pandemics were stabilized, partly by the outright bans on "wet markets" all over China in 2020. Such bans spread to other countries and global markets, cutting the trading of wild animals and reducing vectors, along with better public health systems, preventive care, and the development of effective vaccines and drugs.

The basic lessons for humans in our tragic 50 years of self-inflicted global crises — the afflictions of pandemics , flooded cities, burned forestlands, droughts and other increasingly violent climate disasters — were simple, many based on the discoveries of Charles Darwin and other biologists in the nineteenth and twentieth centuries:

- We humans are one species with very little variation in our basic DNA
- We evolved with other species in the planet's biosphere by natural selection, responding to changes and stresses in our various habitats and environments
- We are a global species, having migrated out of the African continent to all others, competing with other species, causing various extinctions

- Our planetary colonization and success, in this Anthropocene Age of our twenty-first century, was largely due to our abilities to bond, cooperate, share and evolve in ever larger populations and organizations

- Humanity grew from roving bands of nomads to live in settled agricultural villages, to towns, and the mega-cities of the twentieth century, where over 50% of our populations lived.   Until the climate crises and those of the pandemics in the first years of our twenty-first century, all forecasts predicted that these mega-cities would keep growing and that human populations would reach 10 billion by today, in 2050

China	1,439,324,000
India	1,380,004,000
USA	331,003,000
lonesia	273,524,000
ıkistan	220,892,000
Brazil	212,559,000
Nigeria	206,140,000
ladesh	164,689,000
Russia	145,934,000
Mexico	128,933,000

WORLD POPULATION DAY
How the population tripled in 70 years

https://www.aljazeera.com/indepth/interactive/2020/07/infographic-world-population-tripled-70-years-200709111948448.html

Now we know why human populations topped out at the 7.6 billion in 2030, as expected in the most hopeful scenario of the IPCC, as well as in the global urban surveys by social scientists documenting the decline of fertility Empty Planet (2019). The newly aware "grassroots globalists," the armies of school children, global environmentalists and empowered women joined with green, more ethical investors and entrepreneurs in localizing markets. Millions were served by microgrid cooperatives, powered by renewable electricity, adding to the world's cooperative enterprises, which even by 2012 employed more people worldwide that all the for-profit companies combined. They no longer used the false money metrics of GDP, but in 2015 switched to steering their societies by the UN's SDGs, their 17 goals of sustainability and restoration of all ecosystems and human health.

These new social goals and metrics all focused on cooperation, sharing and knowledge-richer forms of human development, using renewable resources and maximizing efficiency. This long term sustainability, equitably distributed, benefits all members of the human family within the tolerance of other species in our living biosphere. Competition and creativity flourish with good ideas driving out less useful ones, along with science-based ethical standards and deepening information in self-reliant and more connected societies at all levels from local to global.

When the coronavirus struck in 2020, the human responses were at first chaotic and insufficient, but soon became increasingly coherent and even dramatically different. Global trade shrunk to only transporting rare goods, shifting to trading information. Instead of shipping cakes, cookies and biscuits around the planet, we shipped their recipes, and all the other recipes for creating plant-based foods and beverages; and locally we installed green technologies: solar, wind, geothermal energy sources, LED lighting, electric vehicles, boats, and even aircraft.

Fossil fuel reserves stayed safely in the ground, as carbon was seen as a resource, much too precious to burn. The excess CO_2 in the atmosphere from fossil fuel burning was captured by organic soil bacteria, deep-rooted plants, billions of newly planted trees, and in the widespread re-balancing of the human food systems based on agro-chemical industrial agribusiness, advertising and global trading of a few monocultured crops. This over-dependence on fossil fuels, pesticides, fertilizers, antibiotics in animal-raised meat diets, all were based on the planet's dwindling

freshwater and proved unsustainable. Today, in 2050, our global foods are produced locally, including many more overlooked indigenous and wild crops, saltwater agriculture and all the other salt-loving (halophyte) food plants whose complete proteins are healthier for human diets.

Mass tourism, and travel in general, decreased radically, along with air traffic and phased-out fossil fuel use. Communities around the world stabilized in small- to medium-sized population centers, which became largely self-reliant with local and regional production of food and energy. Fossil-fuel use virtually disappeared, as already by 2020 it could no longer compete with rapidly developing renewable energy resources and corresponding new technologies and upcycling of all formerly-wasted resources into our circular economies of today.

Because of the danger of infections in mass gatherings, sweat shops, large chain stores, as well as sports events and entertainment in large arenas gradually disappeared. Democratic politics became more rational, since demagogues could no longer assemble thousands in large rallies to hear them. Their empty promises were also curbed in social media, as these profit-making monopolies were broken up by 2025 and now in 2050 are regulated as public utilities serving the public good in all countries.

The global-casino financial markets collapsed, and economic activities shifted back from the financial sector to credit unions and public banks in our cooperative sectors of today. The manufacture of goods and our service-based economies revived traditional barter and informal voluntary sectors, local currencies, as well as numerous non-monetary transactions that had developed during the height of the pandemics. As a consequence of wide-spread decentralization and the growth of self-reliant communities, our economies of today in 2050, have become regenerative rather than extractive, and the poverty gaps and inequality of the money-obsessed, exploitive models have largely disappeared.

The pandemic of 2020, which crashed global markets, finally upended the ideologies of money and market fundamentalism. Central banks' tools no longer worked, so "helicopter money "and direct cash payments to needy families, such as pioneered by Brazil, became the only means of maintaining purchasing power to smooth orderly economic transitions to sustainable societies. This shifted US and European politicians to creating new money and these stimulus policies replaced "austerity" and were rapidly invested in all the renewable resource infrastructure in their respective Green New Deal plans.

When the coronavirus spread to domestic animals, cattle, and other ruminants, sheep and goats, some of these animals became carriers of the disease without themselves showing any symptoms. Consequently, the slaughter and consumption of animals dropped dramatically around the world. Pasturing and factory-raising of animals had added almost 15% of annual global greenhouse gases. Big meat producing multinational corporations became shorted by savvy investors as the next group of "stranded assets", along with fossil fuel companies. Some switched entirely to plant-based foods with numerous meat, fish, and cheese analogs. Beef became very expensive and rare, and cows were usually owned by families, as traditionally, on small farms for local milk, cheese, and meat, along with eggs from their chickens.

After the pandemics subsided, and expensive, vaccines had been developed, global travel was allowed only with the vaccination certificates of today, used mainly by traders and wealthy people. The majority of the world's populations now prefer the pleasures of community and online meetings and communicating, along with traveling locally by public transport, electric cars, and by the solar and wind powered sailboats we all enjoy today. As a consequence, air pollution has decreased dramatically in all major cities around the world.

With the growth of self-reliant communities, so-called "urban villages" have sprung up in many cities — re-designed neighbourhoods that display high-density structures combined with ample common green spaces. These areas boast significant energy savings and a healthy, safe, and community-oriented environment with drastically reduced levels of pollution.

Today's eco-cities include food grown in high rise buildings with solar rooftops, vegetable gardens, and electric public transport, after automobiles were largely banned from urban streets in 2030. These streets were reclaimed by pedestrians, cyclists and people on scooters browsing in smaller local stores, craft galleries and farmer's markets. Solar electric vehicles for inter-town use often charge and discharge their batteries at night to balance electricity in single-family houses. Free-standing solar-powered vehicle re-charger units are available in all areas, reducing use of fossil-based electricity from obsolete centralized utilities, many of which went bankrupt by 2030.

After all the dramatic changes we enjoy today, we realize that our lives are now less stressful, healthier, and more satisfying, and our communities plan for the long-term future. To assure the sustainability of our new ways of life, we realize that restoring ecosystems around the world is crucial, so that viruses dangerous to humans are confined again to other animal species where they do no harm. To restore ecosystems worldwide, our global shift to organic, regenerative agriculture flourished, along with plant-based foods, beverages and all the saltwater-grown foods and kelp dishes we enjoy. The billions of trees, which we planted around the world after 2020, along with the agricultural improvements gradually restored ecosystems.

As a consequence of all these changes, the global climate has finally stabilized, with today's CO_2 concentrations in the atmosphere returning to the safe level of 350 parts per million. Higher sea levels will remain for a century and many cities now flourish on safer, higher ground. Climate catastrophes are now rare, while many weather events still continue to disrupt our lives, just as they had in previous centuries. The multiple global crises and pandemics, due to our earlier ignorance of planetary processes and feedback loops, had widespread tragic consequences for individuals and communities. Yet, we humans have learned many painful lessons. Today, looking back from 2050, we realize that the Earth is our wisest teacher, and its terrible lessons may have saved humanity and large parts of our shared planetary community of life from extinction.
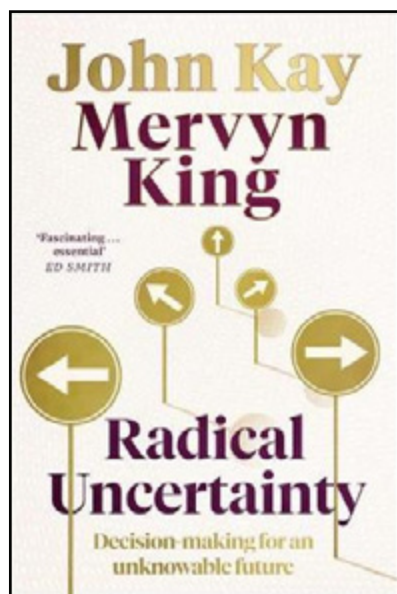
Book Review

by Charles Brass – Chair, futures foundation

Radical Uncertainty
Decision-making for an unknowable future
by John Kay and Mervyn Kane

Sometimes the most relevant books for those with an interest in the future don't contain the words futurist, foresight or even futures in the title or even (as in this case) in the index.

Anyone who spends any time thinking about the future realises that it is ultimately uncertain; but, as these authors note: "acknowledging radical uncertainty doesn't mean anything goes" (p403) and in just under 500 pages Kay and King explore just what Henry Mintzberg meant when he said: "we shall never really see it all. But we can certainly see it better" (p296).

Both authors are economists and have collaborated on previous books as well as being established individual authors. Both have been academics and consultants, and King was Governor of the Bank of England from 2003 to 2013. Their economic background is very obvious particularly in the way the second half of the book is written, but their introductory Part One: "The Nature of Uncertainty" could easily have been written by a futurist. In it they use various historical examples to highlight the different ways in which leaders throughout history have dealt with momentous decisions they have faced.

They are particularly struck by the very different ways very senior bank officials responded to the global financial crisis that began in 2007, and President Barak Obama decided whether or not to authorise the mission to kill Osama bin Laden. In the first case, they quote the CFO of Goldman Sachs, David Viniar, who said: "we were seeing things that were 25-standard deviation moves several days in a row" despite the fact that " our universe has not existed long enough for there to have been several days on which 25 standard deviation events could occur" (p6). This focus on probability, and its apparent association with the management of risk which is particularly prominent in the financial sector is something that is regularly derided throughout this book.

On the other hand, in 2002 President Obama: "met with his senior advisors in the White House situation room to consider what he knew would be one of the defining decisions of his presidency. Should he approve the proposed raid by US Navy SEALs on the Abbotabad compound in Pakistan where Osama bin Laden was believed to be hiding? Obama was well aware that a similarly daring plan in 1979 to rescue hostages from the Tehran embassy had ended in fiasco and may have cost Jimmy Carter a second term as president. "John', the CIA team leader, was 95% certain that bin Laden was in the compound. But others were less sure. Most placed their probability estimates at around 80%. Some were as low as 40% or even 30%. The President summed up the discussion. This is a 50-50. Look guys this is a flip of the coin. I can't base this decision on the notion that we have any greater certainty than that" (p9).

Obama recognised that: "in this situation what you started getting was probabilities that disguised uncertainty as opposed to actually providing you with useful information" (p9).

To make the key point they wish to promote, Kay and King conclude: "Obama might have said to his colleagues something like ;if you guys can tell me there is a greater than 60% chance that the man in the compound is bin Laden, I will give the order to go ahead'. But he did not; to have done so would have been to pass responsibility for the decision from the Oval Office, where it belonged, to the intelligence agencies. But such passing on of responsibility did occur in the financial sector, where senior bank executives, such as Mr Viniar, had effectively delegated the management of uncertainty to the risk professionals and their models. Obama understood the issue, Viniar and his colleagues did not" (p9).

The main body of the book is an attempt to make sense of uncertainty. The nature of decision-making, the laws of probability and uncertainty, good and bad narratives, telling stories through numbers and models, and challenging narratives are all discusses, as well as the relationship between economics and uncertainty, and the final part discusses living with uncertainty.

Addressing a wide range of possibilities in the world of unlikely events, they admit that radically uncertain phenomena may not be described easily employing probability distributions. To deal with the future and manage risks, we need to organize our lives and careers around what they call "reference narratives." In the organizational context, reference narratives are scenarios that define the organization's realistic expectations and describe the means of achieving them.

The authors review the universe of uncertain futures and unpredictable consequences. They remind readers that the implications of radical uncertainty are both economic and political ones. These consequences go far beyond financial markets and embrace individual and collective decisions as well. However, it is to economists, and those who rely on them, that much of the book is directed.

Kay and King blame two great economists, Frank Knight and John Maynard Keynes for their the application of probabilistic reasoning to economic and social problems. They claim that Knight and Keynes could not grasp the complexity of probabilistic reasoning by limiting their understanding of "risk" and "uncertainty" paradigms.

Towards the end of the book, Kay and King tell readers they considered using "Through a Glass, Darkly" as the title of the book, and although they didn't use it in the end they suggest that "the metaphor is apt" (p402), and that we all have to adapt to the inevitability of radical uncertainty. This is best done, they suggest, together: "Successful decision-making under uncertainty is a collaborative process" (p412). "The effective leader is one who recognises that his membership of the group is marked by his superior responsibility rather than his superior wisdom" (p416".

They point out that uncertainty is not only inevitable, it is essential: "Without uncertainty there would be little need for evolution, but without uncertainty there would be little possibility of evolution" (p428).

Their final sentences sums up their thesis: "We see through a glass, darkly. And we communicate with each other through narratives, not probabilities, to describe our endlessly fascinating world" (p433).

FUTURISTS IN ACTION

HUMANITARIAN FUTURES

by Nicklas Larsen

Futurist and SCENARIO writer Nicklas Larsen explores how the future can be a source for hope, social innovation, and sustainable development together with pioneers in the field.

Q&A with Shaun Hazeldine, Head of Innovation & Foresight at the International Federation of Red Cross and Red Crescent Societies.

Shaun Hazeldine

The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world's largest humanitarian network, reaching 150 million people annually through 192 National Societies and the work of almost 14 million volunteers. The global humanitarian force has contributed to the well-being and aspirations of vulnerable and marginalised people by improving humanitarian standards as partners in development, responding to disasters, supporting healthier and safer communities and fostering a culture of peace throughout the world. In 2019, the IFRC celebrated 100 years of bringing hope to communities in desperate need, and of bringing the voices of the world's most vulnerable people to the highest levels of government and international diplomacy. In celebrating the past, the organisation looks to the future in a fast-changing world of unprecedented humanitarian needs

How do you work with the future at IFRC?

Four years ago, we started using foresight and futures work as a catalyst for innovative thinking and agility in the IFRC, but it has quickly developed into a strategic organisational tool as well. Just about two years ago, the general assembly of the IFRC decided to have the new 10-year strategy designed by our foresight team using a wide range of methodologies. Since then, literally 10,000 people have been consulted, and Strategy 2030 — A Platform for Change, Local Action, Global Reach was unanimously adopted in December last year. It's largely about continuing to provide cutting edge thinking on humanitarian trends and needs, but it's also about supporting the National Societies to develop their own strategies, and supporting foresight teams to use these approaches to develop long-term humanitarian futures strategies at national level.

Please define 'humanitarian futures' …

As a term, 'humanitarian futures' refers to changing types, dimensions, and dynamics of future humanitarian crises. It concerns transformation for social good, which will only truly be effective if it involves a systematic interrogation of all drivers of change, including those that are less obvious, and if it is representative of all peoples and all futures, and clearly linked to strategic reform. A challenge is that foresight, as we call it internally, is relatively niche in this sector and nascent for the IFRC, which is more than 100 years old. So there's an interesting juxtaposition at the practical disaster response level that is being powered by access to much better data, enabling the anticipation of disasters, more anticipatory disaster management and the release of funding ahead of disasters for earlier action, while there's this recognition of the need for much more anticipatory strategic thinking as well.

What are the most pressing existing and emerging risks that confront the humanitarian and development sector?

The changes of the 21st century have produced complex and inter-related global challenges. We are seeing the impacts of the climate crisis as a growing reality for millions of people, as well as new and unexpected health threats that are contributing to driving migration and displacement at a time when compassion for people on the move is at an all-time low. Without action on both climate and environmental degradation, the impacts of these will place increasing pressure on scarce natural resources, including food, water, and clean air. Although there are areas where can be optimistic, such as developments in certain technological areas, people are continuing to face an ever-more-complex mix of interconnected risks to their health and well-being as a result of multiplier effects from population movements, pandemics, conflicts, non-communicable diseases, natural and technological disasters, and climate change. Adding to that, the number of migrants globally has grown significantly since the year 2000 and is projected to go on rising, notably because of conflict, poverty, and a lack of quality employment opportunities. In the future, it is projected that climate and environmental crises will make some regions uninhabitable, forcing people to move en masse. Further, the pace of change is leaving many political, regulatory and welfare systems unable to cope. The benefits of economic and technological progress, while driving significant gains and opportunities, are not being shared equally. Space for principled humanitarian action is shrinking and is even criminalised in some parts of the world. These global changes risk creating a more disconnected, less inclusive, and less empathetic world.

How do you make sense of the current crisis that we find ourselves in, and how will it impact your work going forward?

This particular crisis has brought many important transformations to the fore: the need for digital transformation, something the sector has lagged on, but as many have observed has achieved more in the past two months than might otherwise have been possible in two years; the criticality of strong local actors, as this has been largely a domestic response in many ways; the importance of trust in institutions and experts; and the value of solidarity and compassion for others. As one of our volunteers in Spain recently put it: "For the first time I saw an entire town looking in the same direction, and it moved me." The question will be: Can we capitalise on these opportunities and ensure they grow and continue over time and help us to transform into a better society?

What do you think will characterise future vulnerabilities?

Well, vulnerability in the future can be seen as more common, more concentrated, more complex and more costly. Disasters due to extreme weather events and climate/environmental disrup- tions are predicted to increase. By 2030, almost half of the world's poor are expected to live in countries affected by fragility and conflict. The people least able to cope with disaster will be the ones most affected. Beyond traditional drivers of disaster and crises, our increasing dependence on technology is bringing new, complex risks and vulnerabilities, including potentially unforeseen cyber and digital threats. In addition to all this, increasing population density in urban and particularly informal settings is likely to result in significant deprivation and more hazard exposure. The combination of common, concentrated and complex disasters means that when a disaster strikes — be it a seismic or weather- related event or an infectious disease outbreak — the impacts are multiple, the ability to provide immediate assistance is low, and the costs of providing assistance in such complex environments are higher.

What role does the future play in strengthening prevention, preparedness, and response capacities?

Futures work is certainly not a panacea and nowhere near as effective as a lot of other development interventions and programmes for helping the support of supresed people, but it can be a useful tool for helping people to gain a better understanding of the shifting context around them and to take action, to have and feel some agency, which can be quite rewarding. In contrast to the practical disaster response level, most of the futures work can be very much up in the air, and humanitarians don't have a lot of time for it if they can't see how it changes what they do on Monday. It can for instance be very hard to do futures work in an environment experiencing protracted conflict. We did do some, but when people aren't sure whether they're going to make it through the day or where things are going to be in a few months, it's very hard for them and very traumatic for them to think about the future, so we must take a very nuanced, kind of careful approach to that sort of thing. So the hard part is to turn futures into actionable change, and get people away from the paralysis that big trend conversations can bring.

Could you give us an example?

Forecast-based financing, for instance. The idea is that you release funds and take action before a disaster hits, which is a bit of a no-brainer when you think about it conceptually, but institutionally it's quite a difficult thing to do, because you have to convince donors to let money go out for something that may not happen, which can look like spending in vain. So there's been a huge amount of dissonance very deeply integrated into our global disaster response mechanisms. However, in Togo my colleagues worked with operators who were releasing water out of a dam, which ended up flooding downstream communities. Here, historical data of rainfall combined with knowledge of when the dams were released gave some sort of analytics that we could forecast, right? So, based on that assessment, we could release financing ahead of time and if the likelihood of flooding was low, the funding was accordingly low, but as the likelihood went up the more funds would be released, and the greater the action required — as in distributing water purifiers and moving people to higher ground. That worked with some degree of accuracy and has been applied across a whole swath of natural disasters around the world now, but it is still developing. The science is getting better, but the trickiest thing of all is not forecasting, but shifting the systems. The Red Cross and Red Crescent have been working on this approach for a decade now with other partners, but it has only now moved to the centre of our organisation and become a core component of our work with disasters. This long timeframe was in part because systems needed to change, but in contemporary times we can't take a decade to shift to something that is so obviously effective.

How are you using futures work to aid leaders of humanitarian organizations and volunteers to make sense of a rapidly changing world?

We have established the Solferino Academy, which aims to help the Red Cross and Red Crescent network anticipate, understand and adapt to trends and emerging issues through advanced analysis of social, political, cultural and economic issues impacting vulnerability and the humanitarian and development sectors. The Solferino Academy fosters engaged spaces and learning opportunities to understand the impact of change on the effectiveness of the Red Cross and Red Crescent in meeting humanitarian and development needs now and in the future.

The Academy deploys and coordinates a range of futures and foresight tools and methods, such as horizon scanning, trends and emerging issues analysis, scenarios and forecasting analytics, for example to help leaders steer change at local, national, regional and global levels. The Academy helps the network to gain fresh insights, fast-track idea generation and decision making, and inspire better outcomes. Lastly, the Academy works in partnerships with the private sector and academic institutions, entrepreneurs, start-ups, and others who share similar values.

In what ways do you wish to see the impact of your work?

What I want to see is a situation where local communities have much more power and agency in their lives, much more capacity, and much more inclusive futures where people have the opportunities to thrive, right? Not just this 'resilience agenda', which always sounds so under-ambitious to me, in the sense that you should be able to bounce back from a disaster, from a great tragedy in your life. We recognise that there is much more to humanitarianism than just supporting people to survive and recover from crises, and we want to go beyond resilience, to ensure that individuals and communities can thrive in an equal and compassionate way. That's the end goal with our newly implemented Strategy 2030, which is above all a strategy of hope in the power of humanity to mobilise for good and create a better world. The values and principles of our National Societies are a powerful force for humanity with our unparalleled global volunteer base committed to driving positive change throughout the world, to ensure that all people matter and that, collectively, we are ready and willing to make the changes that are needed so that we can all have opportunities to thrive.

How would you advise your future self?

First of all, I'd say to myself: 'Shaun, don't stress so much and spend more time with your family and friends', but I'd also like to take inspiration from the futures work, and remind my future self about this when times are tough. There is an easy temptation when doing foresight work in the humanitarian sector to paint fairly bleak scenarios and dystopian futures, because you can very easily look at climate change, migration, pandemics, health issues and rising levels of inequality. Yet there are also many people the world over who want to make their lives, their communities and their world better. Many previously marginalised voices are now calling for greater agency and involvement in decision-making. In many countries, there are influential efforts to secure recognition and equality for all persons, regardless of their sex, race, ethnicity, religion, gender or sexual orientation. There's tremendous capacity for humanity and hope in the world, and we see it now even with the ongoing pandemic. You hear all kinds of amazing stories of solidarity and see examples of people on the front line, or people just keeping basic services going, at risk to themselves, in the face of this sort of adversity. We once did a crowdsourced foresight exercise, and I like to remind myself that what we saw there was ingenuity, kindness, solidarity and compassion as well, and the capacity to evolve and adapt, even in the face of crisis.

This article was originally published in SCENARIO magazine from the Copenhagen Institute of Futures Studies, and is reproduced with permission.

Signals in the Noise

THE TOP 4 ARTIFICIAL INTELLIGENCE TRENDS FOR 2021

by Thomas Frey

Before the global pandemic struck in 2020 and the world was turned on its head, artificial intelligence (AI), and specifically the branch of AI known as machine learning (ML), were already causing widespread disruption in almost every industry.

The Covid-19 pandemic has impacted many aspects of how we do business, but it hasn't diminished the impact AI is having on our lives. In fact, it's become apparent that self-teaching algorithms and smart machines will play a big part in the ongoing fight against this outbreak as well as others we may face in the future.

AI undoubtedly remains a key trend when it comes to picking the technologies that will change how we live, work, and play in the near future. So, here's an overview of what we can expect during what will be a year of rebuilding our lives as well as rethinking business strategies and priorities.

SMARTER BIG DATA DATA ANALYTICS AND INSIGHTS

During this ongoing pandemic, we've seen first-hand the urgent need to quickly analyze and interpret data on the spread of viruses around the world. Governments, global health bodies, academic research centers, and industry have come together to develop new ways that information can be collected, aggregated, and worked with. We've become used to seeing the results of this on the news every night, when the latest infection or death rates are given for our own regions.

Technological advancement is the main reason that this pandemic hasn't (yet) killed as many as, for example, the 1918 Spanish Flu outbreak that claimed up to 50 million lives. From advancement in medical technology and standards of care, to advances in communication technology that enabled outbreaks to be spotted more quickly and lockdowns imposed. Over the next year, AI will be added to the list of technological developments that are enabling us to more effectively deal with pandemics.

The growth in the amount of scientific and medical literature alone is enormous, with more than 28,000 papers published by April this year relating to Covid-19. A dedicated search engine powered by natural language processing (NLP) algorithms has already been made available, so anyone can get AI assistance when investigating this massive dataset.

Work is also ongoing to develop AI solutions to help deal with the huge backlog of other medical issues, such as cancer, where treatment has been affected as resources are diverted to fight Covid-19. Over the next year, we are likely to see the accelerated adoption of AI across many other areas of healthcare, not only related to tackling viruses.

By developing our ability to apply machine learning problem-solving to these massive, real-time global datasets, we will spot outbreaks more easily, track contact between infected people, enable more accurate diagnoses, and, by predicting ways that a virus might evolve in the future, develop more effective and lasting vaccinations.

AUTOMATED DETECTION AND PREVENTION

We have already seen the use of drones in several jurisdictions, including the US, to at least test the possibility that they can be used to monitor whether social distancing guidelines are being followed. More advanced applications are on the horizon – such as drones with the capability of detecting COVID symptoms such as high temperature in individuals within a crowd.

These systems use computer vision technology to analyze data captured by cameras on the drones and inform authorities or local administrators of statistics and probabilities around the spread of the virus.

Another related growth area will be the use of facial recognition technology, also powered by computer vision algorithms. Somewhat more controversial as it focuses on the identification of individuals, rather than patterns among groups of people, facial recognition has been used by police to detect lockdown and quarantine-avoiders, as well as to track the movements of individuals displaying symptoms within a crowd.

The evidence seems to suggest that the public has become more tolerant of surveillance tactics that would previously have been considered overly draconian, due to the health risks posed by the virus. This tolerance is likely to be further tested over the coming 18 months as technologists become more adept at AI-driven surveillance and even enforcement.

BUSINESS ON THE REBOUND – PREDICTING BEHAVIOURAL TRANSFORMATION

The way we live, work, and socialize has been hugely impacted by the spread of Covid-19. While there has been a steady, strong trend towards digital in many aspects of society, this year, we've witnessed a stampede. Amazon's sales during the second quarter of 2020 were up 40% on the same period last year, as even those who have so far shunned online retail were forced to re-assess their options.

AI tools and platforms are already in place to help businesses understand the way their customers are adapting to a new reality. Organizations that were previously lagging in their uptake of digital channels for commerce and relationship nurturing have come to understand the urgency of the situation and are quickly getting to grips with concepts such as behavioral analytics and personalization. Tools providing organizations with self-service access to this technology will become increasingly prevalent throughout 2021, as small and medium-sized enterprises are seeking to establish their competitive edge.

SHUTTING DOWN THE NEXT PANDEMIC BEFORE IT EVEN STARTS

Most AI algorithms are geared towards prediction, and the holy grail of AI-assisted epidemiology will be to build systems that can accurately predict when and where future outbreaks will take place. This research has been ongoing for some time, and in fact, some of the earliest alerts about the current outbreak were generated by AI. Toronto-based BlueDot's tool was already scanning 100,000 governmental and media data sources daily when it issued an alert about a potential outbreak in Wuhan, China, on December 31, 2019.

We can expect AI research to yield further breakthroughs over the coming 18 months that will increase our ability to spot and react to the danger of viral outbreaks. For this to happen, though, it will also require ongoing global cooperation between governments and private industry. How this plays out will most likely be affected by global politics and legislators, as well as the course of technological development. For this reason, no issues such as access to medical datasets and barriers to the international exchange of information will also be hot topics over the coming year.