

FUTURE NEWS

TO CONNECT, TO INFORM AND TO INSPIRE

IN THIS EDITION

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ON THE WORLD'S BIGGEST CRISES AND HOW TO SOLVE THEM

by Jared Diamond



Pulitzer Prize winning author Jared Diamond's recently published book, *Upheaval: How Nations Cope with Crisis and Change* provides a litmus test for a nation state in political calamity and its subsequent survival. Vast in scale and ambitious in scope, Diamond's book takes on global history over the last three centuries and dedicates significant time to predicting future threats to our planet. Especially the four most daunting ones are: nuclear war, climate change, global resource depletion, and rising global inequality. All four bring their own specific worries, anxieties, and agonies. But the 81-year-old Professor of Geography at UCLA doesn't waste much time when it comes to predicting a worst-case scenario related to a nuclear holocaust.

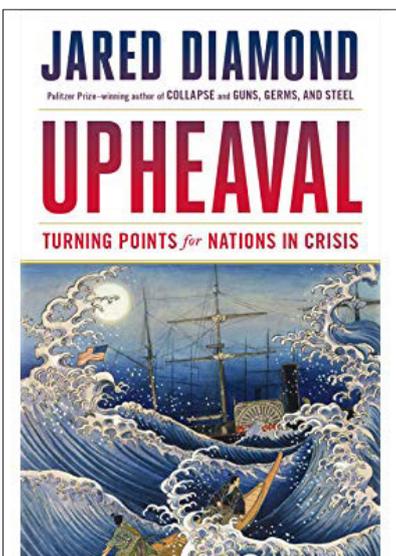
"There is potential right now for exterminating the human race involving the use of nuclear weapons," Diamond explains in a softly spoken, yet deadpan manner from his publisher's office in Central London. That threat no longer just involves the usual suspects either, such as the United States, North Korea, Iran, and China. The globe-trotting intellectual then brings me on a tour of mid-twentieth century nuclear holding history, illuminating how the policy has gradually transformed since the fall of the Berlin Wall in 1989.

The most popular scenario when discussing atomic war is a surprise nuclear attack by one nation on another. This potential catastrophe was the one most feared throughout the Cold War. It led both the U.S. and the Soviet Union to develop weapon systems, enabling what Diamond labels "mutual assured destruction". And, while the threat of nuclear war often loomed, and came close during the Cuban Missile Crisis, an attack was never carried out. Cold War politics may have seemed like a perpetual game of apocalyptic poker, where a winning hand allowed you to cash in your chips and receive the end of the world as the winning prize. But Diamond believes that somewhere in its eschatological all-or-nothing approach to political ideology lay a safety mechanism of sorts. This arose out of an unwritten gentleman's agreement: both superpowers understood the unwritten rules with absolute clarity and certainty – a surprise attack would be an irrational move.

Today, the world is a much more fragmented place than it was during the Cold War. Old certainties and distinct polarities, like East vs. West or communist vs. capitalist, no longer wedge the globe between clear cut ideological lines. "If nuclear weapons were just exchanged between, say, India and Pakistan – and they shot off their arsenal at each other – the result would not just be hundreds of millions of dead people in India and Pakistan," Diamond explains.

"The exposure of those nuclear weapons would put dust up into the atmosphere and produce what's called a nuclear Winter: it would first of all darken the atmosphere, we would then witness the world getting colder, followed by a drop in photosynthesis, the spread of disease, and the end result would be the risk of ending first world civilization, and at maximum, the end of the human race."

“ Old certainties and distinct polarities, like East vs. West or communist vs. capitalist, no longer wedge the globe between clear cut ideological lines.



“Renewable energies are not a utopian concept and bring their own set of problems too.”

Even if our world is lucky enough to save itself from self-annihilation in the coming decades by avoiding a nuclear war, Diamond believes an end point may still come from a more obvious threat: climate change.

“A great deal of this really depends on the issue of Donald Trump being elected in 2020,” says Diamond: “If he does get reelected, I would be pessimistic about the long-term future. But on the other hand, if he gets defeated, I would say that we have gone through a bad period, but that we were on our way to repair.”

Given that figures such as Trump, leading the present global political climate, are refusing to engage in an open discussion concerning the dangers of climate change, Diamond says it’s important that every global citizen understands its fundamental mechanisms. The starting point of this issue comes down to the increase of the world’s population – reaching 9.8 billion in 2050, and 11.2 billion in 2100. As it rapidly increases, so will the average person’s consumption and waste production. The most important waste being carbon dioxide (CO₂), which is constantly being produced by the respiration of animals and being released into the atmosphere. But due to the pace of the Industrial Revolution, and the human population explosion that followed, natural CO₂ release has been dwarfed by CO₂ production.

The CO₂ acts as a greenhouse gas in the atmosphere, which has a significant impact on the environment. The other primary effects of CO₂’s release into the atmosphere are two-fold: it gets stored in the ocean as carbonic acid, killing coral reefs – a major breeding ground for the ocean’s fish – and decreases plant growth across the planet.

“Solving this is straight forward,” says Diamond. “We know perfectly well what to do to reduce climate change: it’s caused due to burning fossils fuels, and therefore, if we want to reduce climate change, we need to do two things.”

“Firstly, reduce our total energy consumption, and secondly, shift more of our energy consumption to renewables rather than to fossils fuels,” Diamond explains. “That sounds really simple. But it requires motivation and convincing people.”

Diamond points to several geo-engineering approaches to tackling climate change – such as the injection of particles into the atmosphere or extracting CO₂ from the atmosphere to cool the earth’s surface. However, Diamond is keen to point out that there aren’t any tested geoengineering approaches that are known to work.

Looking to renewable energies, therefore, seems to be the most sensible and efficient way to stop burning fossil fuels, Diamond stresses. Especially since their sources – namely wind, tidal, hydroelectric and geothermal – appear to be almost inexhaustible.

Diamond points to the fact that Denmark, for instance, already gets much of its electricity from windmills in the North Sea, and that Iceland’s capital city, Reykjavik, gets its heating from geothermal energy. But renewable energies are not a utopian concept and bring their own set of problems too. Converting areas of sunny desert for solar panel energy in southern California, for instance, has proved harmful to an already endangered population of tortoises. Windmills also tend to kill birds, while hydroelectric dams across rivers present obstacles to migrating fish.

Unfortunately, there simply isn't a one-size-fits-all solution that both meets the demand for our energy consumption needs across the planet and saves the environment. Since a choice doesn't exist between a good and bad solution, Diamond says it's better to see this issue through the lens of a more realistic question: which of those bad alternatives is the least bad for the environment? This, of course, means considering all options available on the table. Including two words that most cannot say out loud without shuddering with post-apocalyptic terror: nuclear energy. Mainly, Diamond notes, for three reasons: fear of accidents, fear of diversion of nuclear reactor fuel to make nuclear bombs, and not knowing where to store spent fuels.

Especially considering the American atomic bombing of Hiroshima and Nagasaki in Japan, and the internal nuclear disaster in the north of Soviet Ukraine, which many will note has been popularized in mainstream culture as of late by the HBO TV series Chernobyl. Such horror stories lead many to instinctively associate nuclear reactors with visions of post-apocalyptic worlds before they can even begin to think about the benefits of the energy. But Diamond says those fears are not backed up with a credible set of statistics concerning casualties.



“When it comes to nuclear energy, one can point out the potential catastrophes,” says Diamond. “The worst nuclear catastrophes so far were the 130,000 killed in Hiroshima and Nagasaki by nuclear bombs in 1945. And the 32 people killed – and many more indirectly – in the Chernobyl nuclear accident in 1986.”

Diamond then points to a multitude of nations that, for many decades, have generated most of their electricity requirements from nuclear reactors without a single accident. The list includes France, South Korea, Taiwan, and Finland. The possibility of a

nuclear reactor accident, therefore, needs to be weighed up against the certainty of deaths caused annually by air pollution with the burning of fossil fuels.

This then brings us to another issue that Diamond explores with scrupulous analysis: how countries in the developing world are increasing their living standards through the process of global capitalism. Almost immediately, this sets up the premise for two further important questions: is every global citizen's dream of achieving a First World lifestyle possible? And if so, what kind of impact will that have on our planet's environment?

Well, problems only start arising when billions of people increase their consumption and production habits. But that, of course, is what a rise in living standards fundamentally entails. Just consider the numbers, Diamond suggests. The world's current population stands at 7.5 billion. But only a billion live in the First World, which consists of North America, Europe, and Japan. The ratio of per capita consumption rates between the First and Third World is presently at about 32:1. The math is a little complicated, Diamond explains. But just consider this for a moment, he

says: the United States currently consumes 210 times more than Kenya does, and Italy, which has a population of 60 million, currently consumes twice as much as the entire African continent, which has a population numbering over 1 billion.

Until recently, Third World countries posed almost no threat to First World countries. Especially since the First World managed, and stole, the Third World's resources during the colonial period: a subject that Diamond's book explores in some detail. Nevertheless, the new map of global capitalism – problems, prejudices, and labour exploitation notwithstanding – has changed all of that in the last two decades, as living standards across the world have grown in tandem with a rising global middle class. Lest we forget, this new middle class wants to eat meat regularly, fly on airplanes to go on holiday, use more fuel to power motor vehicles, and use refrigerators. When one adds up these luxurious consumption habits, the end result is that our collective carbon footprint as a species rises not just a little, but astronomically.

Indeed, Diamond argues that as Third World countries catch up to First World living standards, the coming decades are going to present an unavoidable problem: consumption rates across the globe, on average, will increase to 11 times the rate they presently operate at. That number is the equivalent of 80 billion people consuming with the eyes, ears, tastes, and smells of aspiring bourgeois comfort.



“It’s a challenge to decouple the improvement of living standards with the damage of the environment too,” Diamond explains. “The improvement of living standards always involves more food production, and this usually involves damage to the environment. The question is: how can we produce more food and make it less environmentally damaging?”

There are ways to be more environmentally conscious, Diamond maintains. Especially when it comes

to food production. He points to the Netherlands, which after the United States is the second biggest agricultural exporter in the world. “In the Netherlands much of the food is grown indoors in multistacked buildings,” says Diamond. “So the [carbon] footprint on the ground is minimized with these modern forms of food production.” Diamond also points to the issue of food waste, noting that half of the food presently produced in the United States goes in the bin.

“We also need to start asking: what can be done to reduce food waste by 50 percent?” Diamond goes on: “There are some relatively simple ways to do that, which will help to minimize our impact on the environment.”

Diamond's tone as an author is conversational, laid back, centrist, heavy on detail, measured, and well researched, and creates a sharp lucid narrative that mixes geography, politics and history, wherein realpolitik takes preference over moral finger-waving histrionics. But as an American citizen, there is no doubt that he is – certainly when speaking and writing about political affairs – biased towards his home nation: even if he is

critical of it on occasion. His book points out, for instance, that the U.S. has been ruling the global world order since the Second World War – with power, industrial might, and military capability that no country or empire has, historically, come close to matching.



But are cracks starting to appear in what many political scientists have labelled since 1945 as the American Century? Well, in Diamond's view, yes and no. In one chapter entitled 'What Lies Ahead for the United States', Diamond asks two pertinent questions: what about the long term threat of American global hegemony being ruptured by China? And, will the 21st century gradually become the Chinese or Asian Century? It seems like the perfect talking point to begin moving our conversation to the next topic.

"There are some people who will say this century is going to be the Chinese century or the Asian century, I think no," says Diamond with assured self-confidence. "This century is going to remain the American century and the western European century."

But China, as Diamond's book points out, has a population that is four times the size of United States' population. Moreover, China's economic growth rate for years has consistently exceeded not just the United States, but the growth rates of many other countries too. After the U.S., China can also boast of having the highest number of standing soldiers; the world's second largest military spending budget; and having outstripped the U.S. in some spheres of technology (such as alternative energy generation and high speed rail transport). Lastly, China's dictatorial government can get legislation through without being held back by bureaucratic inconvenience, as democratic checks and balances tend to hold a government accountable.



Despite these numerous advantages, Diamond maintains that the United States and western Europe possess an advantage that is immeasurable in graphs demonstrating economic growth rates, industrial output, or monetary value. It boils down to one word: democracy.

"The United States and western Europe have democratic forms of government, whereas China has been an uninterrupted dictatorship since it was unified in 221 BC," says Diamond. "In a democracy you can debate things, in a dictatorship you cannot."

“Today, under the leadership of President Trump, the United States is more disunited than it has been in decades.

Diamond then points to a number of examples where China’s dictatorial politics has caused chaos and always seemed to present a case of one step forward, two steps back. Examples include: the large-scale famine during 1958-62 that killed tens of millions of people, and the suspending of the education system, when teachers during the Mao era were sent out to work with peasants. And lastly, and perhaps most importantly, creating the world’s worst air pollution as China eagerly entered into a new era of economic progress and global trade in 1978, when the Deng Xiaoping era began. Diamond points out that in a democracy, voters can simply unseat politicians who are not performing, once their term in office is up. Something he insists is invaluable when it comes to progress and prosperity.

Diamond may have utter confidence in the U.S. remaining at the helm of a global world order, where it acts as both the world’s policeman and its driving economic force. But internally, he admits, the nation is facing a huge crisis. Most of this stems from the deteriorating political compromise that began to surface in the 1990’s during the Clinton years. Today, under the leadership of President Trump, the United States is more disunited than it has been in decades. This has presented a political shift with two major changes: passing legislation in the U.S. Congress is proving to be extremely difficult, and both the Democratic and Republican Party are becoming less appealing to voters with interests in the centre ground. Millions of voters across the United States are consequently left feeling disillusioned and isolated in a political atmosphere where people insist on contempt for their favored party’s opposition.

“I’m worried about the decline of political compromise in the U.S.,” says Diamond. “I’m also concerned about the increasing level of inequality within the U.S., the decline of socio-economic mobility, and the decline of government investment in the U.S. for public purposes.”

Diamond believes this lack of political unity is feeding into broader sociological problems across the United States. Much of which he blames on technology, specifically social media, where Americans choose their sources of information according to their preexisting views. Indeed, increasing social isolation, with the rise of Moore’s Law, has led to the decline of what Diamond defines as social capital: that is, connections among individuals, social networks, and the norms of reciprocity and trustworthiness arising from face-to-face meet ups with people who share common interests.

The original story, created by the Copenhagen Institute for Futures Studies, can be accessed here: <https://cifs.dk/topics/culture-ideas/interview-jared-diamond/> and is reproduced with permission.

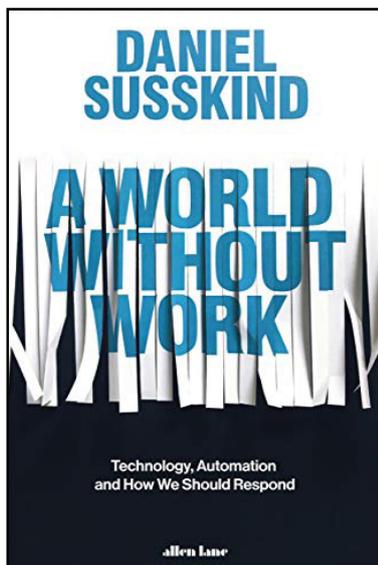


Book Review

by Charles Brass – Chair, futures foundation

A World Without Work

by Daniel Susskind



“What cars and tractors were to horses, computers and robots would be to human beings.”

The last 30 years have seen an explosion in thoughtful books about the future of work¹. Many have come to a similar conclusion as Daniel Susskind – that non-human technology will increasingly have the capacity to take over tasks currently done by humans, and that this will have a significant impact on how future societies operate.

Susskind is a Fellow in Economics at Balliol College, Oxford University. Previously he worked in the British Government – as a policy adviser in the UK Prime Minister’s Strategy Unit. He was a Kennedy Scholar

at Harvard University. His previous book (co-authored with his brother) is “The Future of the Professions” and also explores how technology will change and what it will mean to be called a human expert in the very near future.

Like other authors, Susskind begins in the late 1800s when horses dominated cities, and notes how technology has effectively made horse power redundant. He (like others) quotes Wassily Leontief (a Russian/American Nobel Prize winning economist) who predicted (in the early 1980s) that “what cars and tractors were to horses, computers and robots would be to human beings” (p2).

Susskind probably agrees with Leontief about the long-term consequences of automation, but he clearly doesn’t believe that the transition will be nearly as abrupt for humans as it was for horses (in 1880 over 15,000 horse carcasses were removed from New York City, the last horse drawn tram in that city was decommissioned in 1917[p2]). He makes this point with one of the sub-headings in his introduction – “Not with a big bang, but a gradual withering” (p3).

¹ Some examples include:

“The Technology Trap – Capital, Labor, and Power in the Age of Automation”; by Carl Benedikt Frey – Princeton University Press, 2019

“Reinventing jobs – a 4-step approach for applying automation to work”; by Ravin Jesuthasan and John W. Boudreau – Harvard University Press, 2018

“Don’t worry about the robots – how to survive and thrive in the new world of work”, by Dr Jo Cribb and David Glover – Allen and Unwin, 2018

“Sleepers, Wake! - Technology and the Future of Work”, by Barry Jones - Oxford University Press, 4th Edition 1995

“The end of work - The Decline of the Global Labor Force and the Dawn of the Post-Market Era”; by Jeremy Rifkin - GP Putnam and Sons, 1995

“Pick up your smartphone, open your laptop – and you can be confident in saying that this is the least advanced that it is ever going to be”

Susskind’s main text is divided into three parts – **the context, the threat, the response**.

In **the context** he concisely (just 50 pages) explores the history of modern working patterns from the industrial revolution. Susskind explores (and, when thinking about the modern era) debunks the three main arguments used by proponents of automation who dismiss its impact on humans – the productivity effect (that technology makes humans more efficient, it does not replace them) – the bigger-pie effect (that technology opens up new economic opportunities for everyone) – and the changing-pie effect (that even if technology does make some workers redundant, it opens up new opportunities for them, if they are open to new training).

One way he debunks these arguments is by noting that, while overall employment rates seem to have remained reasonably stable over time, the number of people with less hours (and less money) than they want has increased, as has the share of income going to the highest paid workers. As Susskind puts it: “Labour markets are becoming increasingly two-tiered and divided” (p37).

This reasoning leads him to discuss the ALM Hypothesis (named after David Autor, Frank Ley and Richard Murnane, the economists who first proposed it in 2003) that: “looking at the labour market in terms of ‘jobs’ was not helpful” (p38). Rather, the hypothesis proposes that every job is made up of tasks, and that the impact of automated technology differs according to the individual task, not the overall job.

This hypothesis is taken very seriously by modern researchers, many of whom have broken jobs down into long lists of tasks along with a prediction of the likelihood that each task can be automated. Susskind is very skeptical of such lists, for two reasons. Firstly because predicting the future trajectory of any technology is a fraught exercise. Secondly, he doubts much of what is written about just how sophisticated artificial intelligence needs to be before it has a significant impact on many jobs. He notes: “If a job is made up of ten tasks, for instance, there are two ways that progress in AI could make it disappear. One is that a AGI (Artificial General Intelligence – the ‘grand goal’ of AI – a machine that can do anything) is created that can perform all ten tasks by itself; the other is that ten distinct ANIs (Artificial Narrow Intelligence) are invented, each able to perform just one of the tasks involved” (p66).

In part 2 – **the threat** – Susskind divides the challenge of Artificial Intelligence into four categories – task encroachment, frictional technological unemployment, structural technological unemployment and technology and inequality.

He begins where he left off in the first section by trying to parse the limits of machines. Again, he concludes this is something of a fool’s errand – “pick up your smartphone, open your laptop – and you can be confident in saying that this is the *least advanced*

““ The idea that education can indefinitely solve the employment problems created by technological progress is pervasive and largely unchallenged; it is also... a big mistake.

that it is ever going to be” (p78 – emphasis in the original). He summarises his conclusions about frictional unemployment - which are that the most educated workers gain the most - by quoting David Autor: “less-educated workers have moved ‘less and less upwards’ through the labour market” (p103).

With regard to the structural consequences of technological development, Susskind says: “It may be right that technological progress increases the overall demand for work. But it is wrong to think that human beings will necessarily be better placed to perform the tasks that are involved in meeting that demand” (p126). And he concludes: “We can now begin to see how the Age of Labour is likely to end. As time goes on, machines continue to become more capable, taking on tasks that once fell to human beings....There is no reason, though to think that the demand for the work of human beings will dry up at a steady pace....Nor will the demand for the work of human beings dry up at the same pace in all parts of the economy” (p127).

In examining technology and inequality, Susskind looks closely at the two main types of capital – property and labour – in recent years. He quotes a number of researchers who have noted that the share of income (and wealth) going to labour has been steadily decreasing perhaps for 25 years, while the share going to those who own property has been steadily increasing. Here the reader will be reminded of both the “we are the 99%” movement, and that these trends are by no means inevitable, with graphs showing much less inequality in a small number of countries.

Part 3 – **the response** – is why I bought this book. Most of what Susskind has detailed in his first 140 pages has been clear to me (and many, many others) for perhaps 20 years. The bigger challenge is what the human race might do in response to the challenge non-human technology places on our current ways of thinking about economics.

The first thing Susskind does in his response is to reject the idea that more, or better targeted, education would fix the problem. He vigorously disputes the claim by Jason Furman the former chair of President Obama’s Council of Economic Advisers who once tweeted: “work has a future, and whatever it is, education will help” (p153). “The idea that education can *indefinitely* solve the employment problems created by technological progress is pervasive and largely unchallenged; it is also....a big mistake” (p153 – emphasis in the original).

Having (somewhat reluctantly, apparently) arrived at this conclusion, Susskind then says: “I came to realise that my focus on the future of work alone was far too narrow. Instead, I found myself grappling with the more fundamental question....how should we share our economic prosperity?” (p168), and it is to answering this question that he devotes the last 50 pages of this book.

““ In the future, the daily lives of those without work are likely to be divided ... between activities they choose, and others that their community requires them to do.

His first conclusion is: “we need a new institution to take the labour market’s place. I call it the Big State” (p168). “In calling for a Big State I (don’t mean) using the state to make the pie bigger, as the (Soviet) planners tried and failed to do, but rather to make sure that everyone gets a slice. Put another way, the role for the Big State is not in *production* but in *distribution*” (p170 – emphasis in the original). “If free time does become a bigger part of our lives, then it is likely to also become a bigger part of the State’s role as well” (p234).

Susskind is careful to distinguish his “Big State” from our current “Welfare State”, primarily by pointing out that much of modern welfare is predicated on most people being able to support themselves (and their families) through employment. In a world with less work, these systems are not fit for purpose. As he sees it: “the Big State will have to perform two main roles. It will have to significantly tax those who manage to retain valuable capital and income in the future. And it will have to figure out the best way to share the money that is raised with those who do not: (p173).

Given this analysis, it will come as no surprise that Susskind canvasses the role of a Universal Basic Income (UBI) (or Guaranteed Minimum Income, or Citizen dividend; the language is multiple, but the concept is similar), and concludes that what is actually needed (in addition to increased taxation, which he discusses separately) is a Conditional Basic Income (CBI).

The main differences, as Susskind sees them, between a UBI and a CBI are that access to the guarantee is limited to only some people, and that there are strings attached to the payment.

As he says: “...if it is adopted, it means that, in the future, the daily lives of those without work are likely to be divided in two: not between leisure and paid work, but between activities they choose, and others that their community requires them to do” (p233). “If we adopt a CBE will be driven to...take activities that the invisible hand of the labour market had marked down as worthless, and, with the visible hand of the community, to hole them up as being valuable and important (p234).

Susskind believes that creating and managing the implementation of a CBI will change the role of the State in many ways. “Today, we are used to our politicians acting as managers and technocrats whose role is to solve esoteric policy problems. We tend not to think of them as moral leaders. We Do not expect them to guide us on what it means to live a flourishing life. But in a world with less work, we will need them to help us to do this as well” (p236). “Until now, modern political life has dodged philosophical questions like this. In the twentieth century, most societies agreed on the same goal: making the economic pie as large as it can be” (p236).

As he concludes this book: “The problem is not simply how to live, but how to live *well*. We will be forced to consider what it really means to live a meaningful life” (p236 – emphasis in the original).

FUTURISTS IN ACTION

WHAT DO FUTURISTS AND FORESIGHT PRACTITIONERS DO?

WHAT QUALITIES AND SKILLS ARE REQUIRED AMONG THOSE WHO ENGAGE IN THIS PRACTICE?

by Laura Burney Nissen



The term “futurist” is a generic term – generally referring to people who do work called “foresight” or “futures” practice. One sees this referred to a number of ways among people who are occupying this role in government, business and academia as well in popular culture.

“Futures” work refers to a developing field of professional and academic practice that has been evolving for many years, most commonly is currently referred to as “strategic foresight” work*. It specifically involves a disciplined approach to systematic individual and collective tools and processes that assist people in using knowledge, culture, creativity, imagination, logic and data to imagine possible futures and their consequences. In so doing, futures practice involves amplified strategic planning to navigate these possible futures – to enhance the probability of contributing or guiding towards desired futures, and decrease the probability or guiding away from undesirable futures. As futures expert



Maree Conway

Maree Conway (2015) suggests, “the term ‘futures’ should always be viewed as a collective noun, in the same way we talk about ‘economics’ or ‘politics.’ The term is always plural, because there is **always** more than one future to consider.”

It is important to note, that all credible people who work in this area are careful and explicit to note that futures practitioners are not in the habit of “predicting” the future in any way. Foresight practitioners use specialized tools to facilitate personal and systemic discovery, dialogue, insight and related action among interested individuals and/or groups who wish to have more agility, agency and effectiveness, in navigating an increasingly disruptive and unpredictable future. Use of scanning and sensemaking, scenario planning, deep consideration of impacts of various individual and overlapping possible futures are all examples of activities that would comprise foresight building efforts.

It is related to, but different than, strategic planning. While historically prevalent, strategic planning often works toward identified goals in a variety of ways, developing “a plan” and acting upon it, whereas foresight work incorporates a more dynamic “container” for uncertainty, emerging shifts, and dynamic evolution. Planning and action is involved in strategic foresight practice, but there is an assumption that plans will be in a constant state of revision through an action phase as new information, new disruptions and new dynamics will continue to play a role. In strategic foresight work, plans are alive and evolving.

Many suggest that strategic foresight practice, is as much “a way of being” in the world, as it is a set of philosophies, tools and practices.

What is known about people who are successful in this practice area? Upon examination, one can find many overlaps and intersections with social work practice. Our profession has an opportunity to join with others and contribute our own emerging expertise and dedication to equity practice in these futures spaces. However futures work has it’s own distinct voice, language and perspectives. The following is a sample of ideas about this I’ve gathered a few ideas from well-known and respected sources.

Characteristics of “foresighters”– Conway, M. (2015). Foresight: An introduction. *Melbourne, Australia: Thinking Futures*. I am open to new ideas, including what others might call weird and whacky.

- I am curious – I want to know why it is so. I’m a good observer.
- I think outside the box – I understand my field of practice but I’m interested in global change as well.
- I challenge assumptions about the future – mine and others.
- I value diversity – I understand the perspectives are neither right nor wrong but just are.
- I am resilient. I understand the value of foresight to better understand the future, and that this future may be sometimes difficult to communicate.
- I trust and value my expertise and knowledge to be able to identify observations relevant and important to my organizations future (p. 31).

What makes a good futurist? Kedge (2017). Strategic foresight primer. Kissimmee, FL: Author.

Someone who will:

- Crave curiosity (active ability to ask “why” relentlessly, or to build upon and go beyond obvious questions and answers, seek new connections, discover regularly and be effective getting others to do so as well)
- Act courageously (see and move beyond what feels safe or known, and embrace that new perspectives emerge beyond comfort zones)
- Welcome diversity (ability to challenge one’s own filters and work in teams comprised of different points of view)
- Think outrageously (ability to stretch minds well beyond what is expected or “normal,” and be open to unusual and unexpected ideas)
- Connect the dots (look for pattern in trends and signals)
- Think in multiples (not one future but unlimited futures possible).

What is the role of a strategic foresight practitioner? Angela Wilkinson (2017). Strategic Foresight Primer *Brussels, Belgium: European Political Strategy Centre.*

- Futures midwife – helping new ideas be born and help new parents understand how to navigate what is happening.
- Storytelling coach – using the power of storytelling to open new possibilities.
- Window cleaner – helping people think outside the box and see beyond their usual constraints.
- Map maker – enabling a bigger picture to be seen with new perspectives.
- Psychoanalyst – help move through the anxiety of the unknown and help to create positive thinking, cultivating empathy, and deep reflection on peoples’ roles in understanding and setting paths forward through change.
- Learning facilitator – engaging user-learners as reflective practitioners (p. 5).

Foresight practitioner role. (2018). Foresight Practitioner Training Materials. Palo Alto, CA: Institute for the Future.

- Analyst and synthesizer (absorb and synthesize information, create frameworks and metaphors to facilitate understanding and action)
- Translator (organize discoveries and possibilities into languages and options that fit a particular organizational or community context)
- Community facilitator (helping groups of many sizes imaginatively explore together and find shared meaning in complexity, dynamic change and preferred paths forward towards the future)
- Trusted advisor (present role model for futures thinking, provide informed input at multiple levels of organization, and help to drive future facing strategy).

*It is important to acknowledge that while “modern” futures work might be traced to the mid 1800’s in the Western world, it has other and more Indigenous precursors. Numerous examples in literature focused on Indigenous perspectives on sustainability, principles of the 7th generation and others are essential resources to gain intercultural understanding beyond dominant cultural frames.



Angela Wilkinson

Signals in the Noise

10 TRENDS THAT WILL REALLY DOMINATE OUR FUTURE ALL PREDICTABLE, CHANGING SLOWLY WITH HUGE FUTURE IMPACT

by Dr Patrick Dixon



1) FALL OF ALL TECHNOLOGY AND CONNECTIVITY COSTS

50 year trend, which will continue for at least another 50 years, because of new discoveries, innovation, economies of scale and human need.

Take solar cells for example, which will continue to plunge in price. For some communities they are already the cheapest source of electric power, and by 2030 they will make most other ways of power generation look really last century.



2) UNIVERSAL ACCESS TO MOBILE WEB

There are already more mobile SIM cards in the world than human beings and in most nations of the world. Most web access and e-commerce is now via a mobile device.

And by 2030, trillions of items will be joined up online, sharing information in the greatest and most explosive phase of digital expansion.

3) 1 BILLION CHILDREN ALIVE IN THE WORLD

Never again in human history will so many children be growing up at the same time. All will see your lifestyle in advertising or on TV or the web. All will aspire to middle class wealth, education, health care. Global population will peak at around 11 billion in 2060.

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Those 1 billion children will all be adults in less than 18 years, and most will have children of their own in 25 years. Their views and lifestyles will dominate our planet for the next 50-80 years.

4) OVER 85% OF HUMANKIND LIVING IN EMERGING MARKETS

That's almost everyone. So if you live in a developed nation, think some really radical thoughts about life in 2030. The only markets worth investing in for many industries, will be emerging markets.

The collective voice, opinions and lifestyle choices of those living in emerging markets will one day completely dominate our entire world. America and Europe will decline as global players.



5) GROWTH OF MIDDLE CLASS CONSUMERS IN EMERGING MARKETS

Over a billion new middle class consumers will be created in emerging markets during the next 30 years, as a result of better education and economic growth.

Countries like China and India will be transformed by growth of their own domestic markets – becoming much less dependent on exports of goods or services to developed nations like America or Japan.

6) HUGE GROWTH IN LIFE EXPECTANCY IN MOST NATIONS

The life expectancy of every person living in a city like London has been getting longer by an average of one year in every four years - despite a recent blip.

That's without the miracles of medical technology, pharma and health care that we can expect in the next 50 years. Life expectancy is growing even faster in many of the poorest nations.

By 2040 we will know all the secrets of non-ageing animals – of which there are many types – and will be finding new ways to slow down ageing in wealthy humans.

7) GROWTH IN GLOBAL TRADE AND CORPORATE GIANTS

Every year, trade between nations continues to grow rapidly, as our world continues to become more joined up as a single economic community.

Expect huge consolidation and mergers in manufacturing, distribution and retail. Over 70% of all retail spending will be captured by less than 10 companies in many nations by 2040.

In 2050 there will still be only 2-3 major airline manufacturers, only 2-3 global mobile or computer operating systems, only 10 mega-sized pharma companies, less than 5 major groups of car manufacturers.

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8) INCREASED AUTOMATION – FACTORIES, CARS, OFFICES, HOMES

The Internet of Things, Cloud Computing, Big Data, Robotics and AI will all accelerate global automation of every aspect of human existence. This is an irresistible trend that has been accelerating for over 100 years.

Despite this, expect several billion more jobs to be created, mainly in service industries, as people look for ever more creative and personal ways to improve quality of life.

9) TRIBALISM FEEDING RADICAL EXTREMISTS AND TERRORISM

Tribalism is the most powerful force on earth today. Every family is a tribe. Every community is a tribe. Every brand forms a tribe. Every large company is a tribe of tribes.

As a reaction to globalization and threats to local cultures, languages and ways of life, expect rapid growth of tribalism, localism, activism and terrorism.

These forces will be fed by social media, and will undermine many democracies and dictatorships, while also encouraging tribal leadership: populist, emotional and autocratic, appealing to tribal instincts and issues.



10) SEARCH FOR PURPOSE, SUSTAINABILITY AND SPIRITUAL MEANING

Most people in the world say that they have spiritual beliefs which influence how they think, feel and live.

As communities become wealthier, expect sharper focus on purpose, meaning, making a difference and spirituality.

As part of this, expect intense focus on longer term sustainability for our world.