Covid-19
and
Scenario Planning

A Thought Experiment on the Short and Long Term Impacts of the Present Crisis

INNOVATIONLABS
Where Innovation Happens

An InnovationLabs White Paper

Langdon Morris
March 26, 2020

Prelude

On March 22, 2020, the International Olympic Committee announced that it was going to take a month to study the scenarios regarding the Tokyo 2020 Summer Olympic and Paralympic Games to determine if the Games would go on as planned, or be postponed or cancelled. Only two days later, long before that month had passed, they leaked the announcement of the postponement until the summer of 2021.

The broad outlines of what happened during those 48 hours are easy to guess – having weighed their options, the Committee was unable to see how the Games could continue as planned. There was, they must have seen, no credible scenario in which the athletes would be ready to compete, and the world's travel industry could be ready to transport millions of fans.

They also must have realized that the huge uncertainties about the course of the pandemic meant that there was no way to know if by July, when the games had been scheduled to begin, the pandemic would have eased enough that travel on a mass scale would even be possible.

And so they shared their decision, 28 days ahead of their self-appointed deadline.

Covid-19 is having that kind of effect all over the world – one day's plans and accepted truths are overturned and displaced already the following day. And as we go through the daily ups and downs of the crisis, still business and government leaders need to have insight into what the future holds, even as the fast pace of events day by day seems to make prediction impossible.

But while we cannot predict, we can still learn much about the future to help inform our decision making through modeling the pattern of the pandemic. A set of models that has been critically important to the global Covid-19 response was developed at Imperial College, London, to consider how the epidemic-turned-pandemic might develop, and what actions would be most effective in mitigating the threat.

The College has issued a series of reports, the most recent dated March 26, 2020, in which they model the impacts of the virus under various scenarios and offer valuable guidance for leaders. Here is an excerpt:

> We estimate that in the absence of interventions, COVID-19 would have resulted in 7.0 billion infections and 40 million deaths globally this year. Mitigation strategies focussing on shielding the elderly (60% reduction in social contacts) and slowing but not interrupting transmission (40% reduction in social contacts for wider population) could reduce this burden by half, saving 20 million lives, but we predict that even in this scenario, health systems in all countries will be quickly overwhelmed. This effect is likely to be most severe in lower income settings where capacity is lowest: our mitigated scenarios lead to peak demand for critical care beds in a typical low-income setting outstripping supply by a factor of 25, in contrast to a typical high-income setting where this factor is 7. As a result, we anticipate that the true burden in low income settings pursuing mitigation strategies could be substantially higher than reflected in these estimates.
>
> Our analysis therefore suggests that healthcare demand can only be kept within manageable levels through the rapid adoption of public health measures (including testing and isolation of cases and wider social distancing measures) to suppress transmission, similar to those being adopted in many countries at the current time. If a suppression strategy is implemented early (at 0.2 deaths per 100,000 population per week) and sustained, then 38.7 million lives could be saved whilst if it is initiated when death numbers are higher (1.6 deaths per 100,000 population per week) then 30.7 million lives could be saved. Delays in implementing strategies to suppress transmission will lead to worse outcomes and fewer lives saved.
>
> We do not consider the wider social and economic costs of suppression, which will be high and may be disproportionately so in lower income settings. Moreover, suppression strategies will need to be maintained in some manner until vaccines or effective treatments become available to avoid the risk of later epidemics. Our analysis highlights the challenging decisions faced by all governments in the coming weeks and months, but demonstrates the extent to which rapid, decisive and collective action now could save millions of lives.
>
> Patrick GT Walker, Charles Whittaker, Oliver Watson et al. The Global Impact of COVID-19 and Strategies for Mitigation and Suppression. WHO Collaborating Centre for Infectious Disease Modelling, MRC Centre for Global Infectious Disease Analysis, Abdul Latif Jameel Institute for Disease and Emergency Analytics, Imperial College London (2020) doi: https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/news--wuhan-coronavirus/

The 19 page report makes fascinating and frightening reading, but essential reading for leaders and those who must make decisions for themselves, their organizations, and their countries.

In addition to epidemiological models, another tool we use to understand the future in periods of change and uncertainty is "scenario planning," and as we at InnovationLabs ourselves wanted to get a clearer picture of what lies ahead as the Covid pandemic unfolds, we conducted a scenario planning thought experiment on the unfolding of the Covid-19 crisis and the Post-Covid World. Our focus is not on the medical dynamics of the pandemic itself, but on the broader economic and social consequences.

The purpose of this paper is to share our findings, and hopefully to help you to identify the short, medium, and even possibly long range impacts that you must consider.

Scenario Planning

Scenario planning is a compelling technique that looks at the future not in order to make predictions about what will happen, as in any case our predictions would most likely be wrong, but to consider possibilities, and thereby to inform our thinking about what *may* happen and develop options in advance of the need.

Good scenarios open our eyes to unseen possibilities, they help us to see connections, and they help us to foresee chains of events that might otherwise be hidden. All of this enables us to become better decision makers, strategists, and leaders

During the last 20 years InnovationLabs has delivered many successful consulting projects in the energy, health care, and aviation industries among others by applying scenario planning, and these experiences led us to write extensively about scenario planning in some of our recent books, including *Foresight and Extreme Creativity: Strategy for the 21st Century* (2016), which includes an extensive, 100-page section just on scenario planning, and *The Big Shift* (2018), which examines 83 of the key forces that are currently driving change in our world, and which are key topics for scenario planners to consider.

So what can scenario planning tell us about Covid-19 and its impacts? A great deal, as it turns out, as we will now discuss.

White Paper Contents

1. Coping with Uncertainty

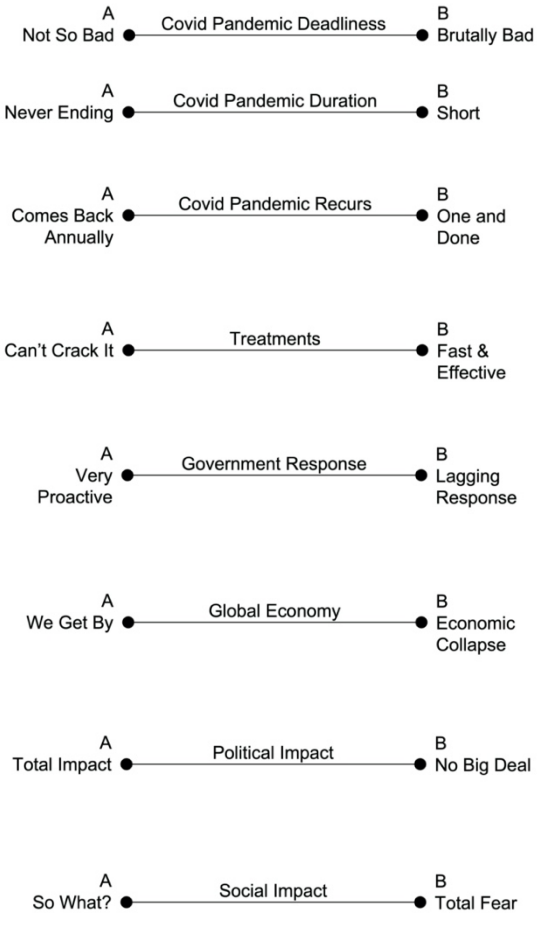
If our experience with Covid-19 tells us anything, it's that our predictions about the future are likely to be wrong in nearly every aspect and circumstance. To make that point crystal clear to us, it's evident that throughout this crisis things that we believed were true yesterday were reversed today, suddenly overturned by new findings or unexpected outcomes. So how then are we to plan for the future and compose our strategies amidst such uncertainties?

This is why scenario planning is so useful, because it enables us to consider what may occur across a wide range of forces and factors, and thereby stretches our thinking beyond what we already know to new discoveries and realizations.

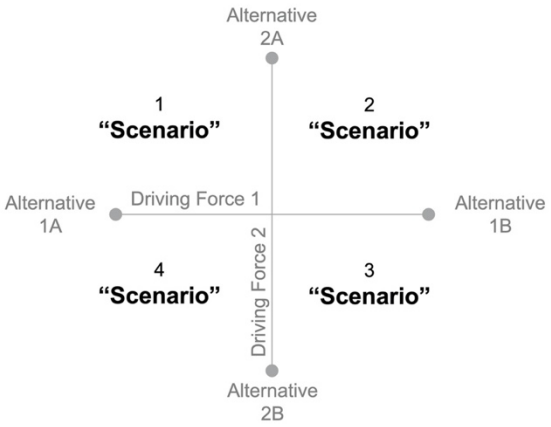
The scenarios in "scenario planning" are stories that we concoct that illuminate our present and future. We create them by identifying "forces" that are driving change, recognizing that the outcomes these forces will attain cannot be predicted. Hence, we may know what is driving makes, but we don't know how those changes will turn out.

For this experiment, we chose eight forces, and for each of the eight we then identified what might be the two most extreme outcomes, as shown below.

1. Covid-19 **Deadliness**: How deadly is it?
2. Covid-19 **Duration**: How long will the virus circulate in society?
3. Covid-19 **Recurrence**: Is it a one-time pandemic, or will it recur, for instance in 2021?
4. Covid-19 **Treatments**: Will an effective vaccine or therapeutic drug be developed?
5. **Government Responses** to Covid-19: Will governments shut down society for weeks or months to stop the pandemic?
6. Global **Economic Consequences** of Covid-19: What will the costs be in terms of GDP growth, bankruptcies, and lost jobs?
7. **Political Impact** of Covid-19: How will the handling of the crisis impact on national politics?
8. **Social Impact**: How much will Covid-19 affect how we live and our attitudes?



The scenario planning technique pairs two driving forces to create a 2 x 2 matrix of possibilities, as shown here:



Each quadrant of the 2 x 2 matrix defines a scenario, a unique and specific situation that results from the labels on the two ends of the driving force axis. "Scenario 1" is thus the outcome of the world in which Alternative 1A and Alternative 2A are the realities.

Because the two ends of each axis are polar opposites, the four resulting scenarios are quite different from one another. And that is exactly the point. This thought experiment forces us to consider four very different sets of outcomes in any given situation, which by definition enables us to think beyond our first instinct and beyond our base assumptions and biases.

We've seen over and over how this opens minds, as we hear comments like, *"Oh, now I see the bigger picture!"* and *"I thought I knew what would happen, but now I realize that all four options are actually possible."*

This is the case even though the 2 x 2 matrix is obviously a simplification, as each pairing thus omits 6 of the 8 factors we chosen (and who's to say that those 8 are even the right 8 to begin with…). But experience has shown over and over that humans are quite good at modeling 2 x 2, and rather poor at trying to model more than 2 x 2. Experience has also shown that we can get a lot of insights from looking at the intersection of just two forces, and so while this does simply things, it also illuminates them. Once our thinking is used to extrapolating from constrained conditions, we tend to extend that faculty to address even more complexity, so we can readily think of scenario planning as training for real-life decision-making.

2. Sixteen Scenarios of the Future with Covid-19

With 8 driving forces to consider we can devise 28 different pairings, and of the 28 possibilities we have chosen 4 to focus on here. We chose these four because each one pairs a Covid-specific theme with a non-specific theme.

1. **Covid-19 Deadliness & Government Response**
2. **Covid-19 Duration & Economic Impact**
3. **Covid-19 Recurrence & Political Impact**
4. **Covid-19 Treatment & Social Impact**

There may certainly be other useful or interesting pairings to try, but we expected that thinking through these four would suffice to bring forth a lot of insights, as indeed it did. Four 2 x 2 matrices yield 16 scenarios in total, which gave us a lot of content to consider.

Scenario 1: Covid-19 Deadliness & Government Response

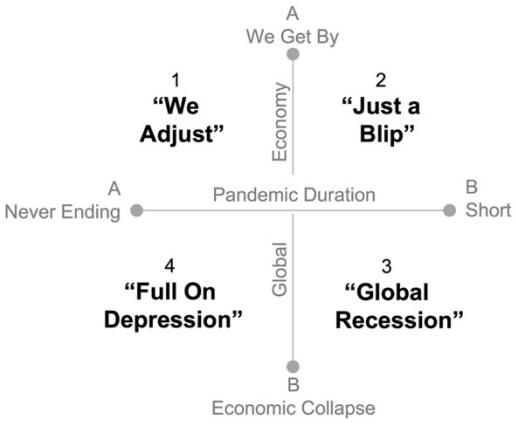
Take a moment to study the matrix. Notice how the two axes and the extreme labels at the ends of each axis define four very different sets of outcomes.

Apparently we're already on the right side of the matrix in scenarios 2 and 3, so we can likely dismiss 1 and 4 as probably irrelevant, as by now we have a sense of the rate of spread and the high rate of mortality, and we have already observed that the governments that were most proactive in initiating widespread restrictions on travel and social gatherings have been more successful in containing the outbreak. Many leaders have been using war metaphors to describe the challenge and intensity of the response, while those that have not are apparently risking much worse outcomes for their societies (more on this below).

Note also that the near irrelevance of quadrants 1 and 4 is not particularly unusual in scenario planning efforts. If we had done this a month ago they may still have been meaningful, but now we know better.

Scenario 2: Covid-19 Duration and Economic Impact

As of right now we don't know how long this is going to last, nor do we have a full picture of the economic impact, so all four quadrants here remain relevant, and we have to consider that all four are entirely possible.



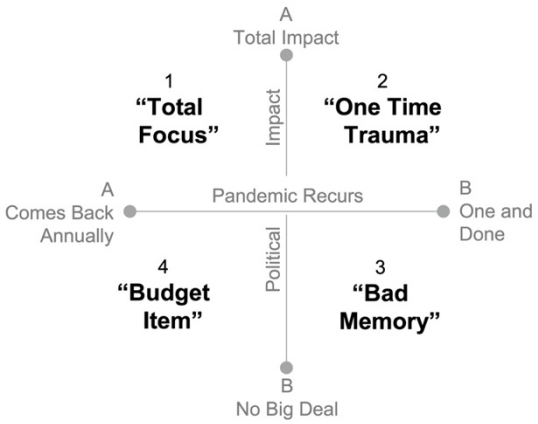
That's a very intimidating problem, because preparing for "a depression" and "a blip" at the same time is cognitively challenging. But it's also realistic, which is again the point. We just don't know. (Although we do know that for the many small business that are already shutting down permanently, this is no blip.)

Economists at Deutsche Bank US have suggested in their March 2020 Report that Asia will experience a "severe recession" beginning in Q1 2020 (i.e., they're already in recession), and the rest of the world beginning in Q2 (i.e., next week). They think it will be the worst financial crisis since 1929.

> Tom Joyce, Deutsche Bank US. "Maximum Containment, Social Distancing & the Economics of Stoppage: 12 Unexpected Market and Economic Themes Defining 2020," March 2020. (Highly recommended reading.)

We will return to this point below in the discussion of imperatives.

Scenario 3:
Covid-19 Recurrence and Political Impact



Here are we are also dealing with four relevant uncertainties, and as political repercussions often take years to unfold in that the cycle of elections also unfolds over years, we won't know the outcome here for quite some time. However, we do know that Covid-19 will be a major topic for at least the next few months of the 2020 American presidential election, and most likely it will have some impact on the eventual winner on November 5, 2020. If the crisis is not resolved by November then it may be the singular issue that decides the election.

The candidates are certainly aware of this, and the two parties are playing the American political situation with full awareness that Trump's leadership during the crisis will have major impact on voters in November. If voters perceive that he did a good job and his actions helped the situation then this is likely to increase his support, but if they feel he handled it poorly, it will provide a big advantage for his opponent.

Naturally, it's not just what happens that matters, it's the spin as well. Thus, while Fox News bends over backwards to praise everything Trump does and says, and Trump also praises himself effusively, Democrats are often highly critical, and seize on every misstatement he makes and every lapse in response. Both sides call upon the other side to stop politicizing the crisis even as they themselves waste no opportunity to politicize it.

Meanwhile, the response in the US comes not only from the federal government, but also from states and cities. What governors and mayors choose to do or not to do also has major impact, and when a mayor chooses a different response strategy than the governor, or when a state governor responds differently than the president does, then we get to see an experiment play out in real time, because we can compare outcomes and results that the differing strategies achieve. Under Covid-19 conditions, that is, the feedback comes very fast.

Scenario 4:
Covid-19 Treatment and Social Impact

Social impacts also unfold over time, as the immediate reaction to the arrival of a crisis often shifts over time as the crisis develops. Awareness develops in an uneven manner, as some accept the urgency while others deny it. Thus, New Yorkers are homebound while young people frolic on the beaches of Miami, teenagers in Kentucky hold "coronavirus parties," and churches in Louisiana hold services for more than a thousand.

Reality sets in as the impacts spread, however, and it seems that soon we may have a nationwide stay-in order, as the government of India is now requiring for its 1 billion + citizens.

But if this is prolonged, we know that eventually patience will wear thin and people want to get back to how things were before. If the Covid-19 threat persists into, through, or even beyond summer, and if the death rate remains high, and if the economy spirals down into a recession or depression, and if as we see in scenarios 1 and 4 there are no treatments, then we have to expect public attitudes turning ugly.

We may then hear apocalyptic visions, prognostications of doom, and attribution of the virus to whatever social or political enemies the speaker is most antagonized by. Conversely, we may also see resurgence of community spirit, help for the needy and threatened, and a heightened sense of social responsibility.
And if the crisis is prolonged we may also discover that society normalizes to its new routines and restrictions, becomes accustomed if resigned to the new conditions, and learns how to make do.

3. Observations

In scenario planning methodology, creating the base scenarios as we have just done is only the first step. We next want to look across all our scenarios to see what broader Observations they may reveal, and then we will consider the "Imperatives," the actions that we or our organizations must undertake as a consequence of what we've learned from this thought experiment. The following are some general observations that stand out from looking across all 16 scenarios, and following that is a discussion of imperatives.

Observation 1: Leadership

How a society copes with such a crisis has a lot to do with the quality of its leadership, both in terms of decision making and morale building. The two are closely connected, as it's imperative for leaders to make effective decisions and to then explain those decisions to the public in a clear manner. Doing so or not doing so makes a huge difference in how the public responds.

But those decisions are not easy ones, particularly give the uncertainties of the Covid-19 course and the huge magnitude of the economic impacts. When leaders engage in thought experiments such as this one, it can help them enormously to understand and cope with the ambiguities and uncertainties they face, to

determine the best ways to communicate to the public (or if they're business leaders, to communicate within their organizations). Hence, one of the actions I will discuss below is the imperative to develop a deep understanding of what may occur, and of course we recommend scenario planning as a great way to do that.

Observation 2: The Economy

It's entirely obvious that the immediate economic impact of Covid-19 crisis will be enormous. (stats from the Economist). But what will happen over the medium and long term?

The backdrop, pre-Covid-19, is that we already knew that the global economy was entering into a fundamental transition – indeed, this was a major theme covered in detail in both the *Foresight* and *Big Shift* books. There are many contributing factors that are driving this change, and they include...

Technology: The emergence of new generations of technology such as artificial intelligence and robotics are already shifting patterns of work and employment throughout the world, and concern about mass unemployment due to automation is widespread since we simply don't know if the new automation will complement existing work, or completely displace it in mass. If the impacts are greater than minimal, it becomes much more likely that technology will itself result in fundamental change in economic structures.

Urbanization: We also know that accelerating urbanization is a key economic factor, and this for two reasons. First, urban residents require "jobs," and the global economy has not kept up a sufficient rate of job creation to accommodate them all, which is resulting in a growing global, urbanized underclass that has significant social and political implications as well as its economic ones. This is now occurring on all continents, and if it continues it will result in greater social upheaval where unemployment is high, and increasing waves of immigration by those seeking better lives. This will be a force of disruption and raise deep questions about the capacity of capitalism itself to accommodate and serve the world's population.

Birth Rate: Second, the birth rate in cities is almost always lower than in the adjacent countryside, and as the majority of humans are now city dwellers, on a global scale this means that the population explosion of the last sixty years is ending. This is tremendously significant, because the last 100 years of industrialism has been based on a steadily growing population, which provided both the labor force for industry as we all as the consumers who needed to buy its output. We don't know if a modern economy can function effectively without population growth, but we're about to find out, because soon that will be our situation.

Against these three backdrop factors we now have a massive contraction of economic activity due to the Covid-19 shutdown, with entire industries going into free-fall. Air travel, hotels, sports, tourism, retail, and urban transport have come to an abrupt halt in nations that have entered the shutdown period, and with the massive reduction in economic activity has come immediate mass unemployment along with significant contraction of GDP.

Indeed, world GDP contraction for 2020 will be as bad or worse than 2008-2009. But what's different this time is that governments are promoting massive aid packages to compensate companies and their employees for their losses on a scale that they did not even consider in 2008.

All this aid is predicated on the assumption that this is a temporary issue, and that there will soon be a return to "normal," but what if Covid-19 shutdowns are the new normal, and the old

normal is permanently gone? What if, that is, the Covid-19 crisis is not temporary?

To explore this issue we were inspired to create another set of scenarios, this time with the two axes being "global economic health" and "social order." (You can see how one set of scenarios leads us to new questions, which we can then explore using still more scenarios. This is normal and very healthy sign of an effective learning process.)

Scenario 5: The Economy and Social Order

The economy is an obvious choice for the horizontal axis, as that's the driver. I have labeled the two ends of the axis as "depression" on one side and "collapse" on the other, because I wanted to look not just at bad outcomes, but worse and worst outcomes.

For the vertical axis I chose Social Order, by which I mean a combination of social cohesion in society, and also the presence and effectiveness of governments and governance. The extremes are that we barely hold it together as a society on the top, or that we lapse into anarchy at the bottom

It's no surprise that this yields four unpleasant scenarios, which vary only in how distasteful they are. And yet, we have to consider that all four really are possible, even if they seem unlikely today.

And if tomorrow we see that any of these scenarios begin to look plausible, governments will of course react. They will combine authoritarian and police-state measures with various forms of economic stimulus that enable them to "hold it together," even if barely. We may even see massive pressure on governments to restructure their entire national economies along lines that we would once have called socialist.

In this mode, governments would be expected to distribute cash on a continual basis to support those who used to work in the industries that have been abandoned, because they've become as irrelevant as buggy whip makers were upon the emergence of the auto industry a century ago. There will be many such industries.

Presently global GDP is roughly $80 trillion annually, and if fears of human contact cause a long-term or permanent shutdown of travel, tourism, food service, and retail, then perhaps 20 – 30 percent of GDP will be lost, with all of the attendant jobs. Governments would find themselves needing to support 15 to 20 trillion of annual spending by the expedient of printing and distributing money.

Mass-scale creation of money is not new in the modern economy, as this was how the world's central banks addressed the 2008 financial crisis – they created money and injected it into the financial system, mainly via the banks. During and after that crisis, a total of about $15 trillion was created and provided by the US, and trillions more by the UK, Japan, and the EU.

Should the long-term, large-scale injection of cash into the economy prove necessary now, it

would signal that twentieth century capitalism had expired. This would mark the end of Friedmanism, the Chicago School of Economics and its singular focus on shareholder returns as the purpose of capitalism, certainly the end of neoliberal economics, and indeed the end of industrial, entrepreneurial capitalism as we have known it.

The shift from the temporary expedience of one-time cash payments bailout, as we are looking at now, to a permanent or semi-permanent state of government funding for huge portions of society would doubtless be an excruciating political exercise rife with debate and angst, especially on the right. But under certain conditions it could be inevitable.

Observation 3: Health Care in the US

Another change that is likely to become inevitable is a shift in how we view health care in the US. Currently we have a muddled care system with uneven coverage, vast variations in costs, tens of millions without any form of insurance at all, and under Covid-19, emergency services stressed beyond the breaking point. Covid-19 will provide strong impetus to address American health care systematically, and you can be sure that this will become a major topic in the 2020 election. Whichever side brings it up first will of course be accused of politicizing the crisis, but that accusation will probably not stand for much since the public will have become so acutely aware of the role of the health care system in protecting society and saving lives, as well as the huge personal cost this has meant to many health workers, who have died in their service.

Another aspect of that debate will be the awareness that Covid-19 could be, as noted above, a recurring pandemic, cycling around yearly as the flu currently does. And it could also be seen as the first, but by no means the last pandemic of its kind. Such a perspective would change how all societies, not just the American, view health care, health insurance, training and preparedness, and public policy quite generally. It has, in other words, exposed a new form of vulnerability that much of the world has not previously experienced.

Observation 4: Science

In many places around the world we have seen over the last few decades a distinctly regressive attitude toward science. This has been particularly evident in the widespread denial of climate change, in the so-called "anti-vax" movement of those who deny the importance or effectiveness of vaccines, and the debate about evolution vs. creation.

The Trump Administration has been particularly forceful in actively suppressing science across many departments of the US government, and hundreds of senior scientists have been forced from their jobs during the last three years.

Yet Covid-19 has demonstrated the absolute importance of science to the functioning and survival of society in a time of complexity such as we are living in now. It is certainly because of science, such as the work of Imperial College, that we know how to avoid a total Covid-19-induced societal disaster, we know about quarantines and transfer rates and how to protect ourselves, we know what forms of medical care are needed, what tools they require, and we can forecast the rates of exposure and the consequences of various mitigation efforts. We have learned about the overwhelming power of exponential spread, and we now know what it means to "flatten the curve." Society's scientific literacy has increased enormously and quite abruptly.

Conversely, without science it's obvious to most that we would have been doomed to a catastrophe on a scale perhaps 10 or 50 times greater than what are likely to endure.

So there are two underlying issues here. The first is the conflict between science and profit, noting that the Trump administration has reduced or eliminated environmental regulations because they interfere with business profits, and second is the conflict between science and ideology, and the prevalence of denial when it is contrary to beliefs or even just preferences.

An example of the conflict between science and profit also raises significant ethical issues. On March 24, 2020, the Lieutenant Governor of Texas exposed his views on the importance of capitalism when he made the baffling comment that, "as a senior citizen, are you willing to take a chance on your survival in exchange for keeping the America that all America loves for your children and grandchildren? And if that's the exchange, I'm all in." By this he apparently meant to say that older people should be willing to die to keep the economy healthy. Does he really think that the smooth functioning of the economy is more important than the lives of his own parents? As it should have, the public outrage came instantly.

On Twitter, for example, New York Governor Andrew Cuomo tartly responded,

> My mother is not expendable. Your mother is not expendable.
> We will not put a dollar figure on human life.
> We can have a public health strategy that is consistent with an economic one.
> No one should be talking about social darwinism for the sake of the stock market.
> (@NYGovCuomo, March 24, 2020; 11:43 am)

Florida's governor has been criticized for not insisting on statewide shelter-in-place restrictions, and instead he allows many kinds of events to proceed that scientists specifically advise against. This is, in effect, a real time experiment with the lives of Floridians (a huge percentage of whom are aged), and therefore more susceptible to Covid-19 induced pneumonia.

The governor also framed his decision as a matter of economics, noting, "When you are ordering people to shelter in place, you are consigning probably hundreds-of-thousands of Floridians to lose their jobs. You are throwing their lives into potential disarray."

https://www.politico.com/states/florida/story/2020/03/24/dumbest-s-desantis-takes-heat-as-he-goes-his-own-way-on-coronavirus-1268818

A similar experiment is happening in Louisiana, where a church leader refused to suspend services, and instead invited a thousand members to attend in person, even though the state mandated that there shall be not gatherings of more than 50 people. He told a local TV station that Covid-19 was, "not a concern. The virus, we believe, is politically motivated. We hold our religious rights dear and we are going to assemble no matter what someone says."

https://www.nbcnews.com/news/us-news/louisiana-pastor-defies-coronavirus-order-draws-over-1-000-people-n1168501

In Brazil, meanwhile, a similar experiment is going on, where President Jair Bolsonaro has suggested that self-isolation was objectionable as "mass confinement," and he called the novel coronavirus a "little cold." The Washington Post reported that he invited Brazilians to return to their jobs and public spaces, but in so doing he contradicted not only his own health officials, but also the global consensus of public health officials. Brazil leads Latin America in both confirmed cases and deaths, and fear is growing over whether the country's institutions and leaders will rise to the challenge of a historic moment. The minister of health has already warned the health system will collapse by the end of April, and in Rio and Sao Paulo each night is filled with the sound of clanging pot-and-pan-banging marking public protest against

Bolsonaro. "It will pass shortly," he predicted on March 24, and called on businesses and schools to reopen. "Our lives have to continue; jobs should be maintained."

https://www.washingtonpost.com/world/the_americas/brazils-bolsonaro-channeling-trump-dismisses-coronavirus-measures--its-just-a-little-cold/2020/03/25/65bc90d6-6e99-11ea-a156-0048b62cdb51_story.html

Soon we will know if he is right, and if he is not then the likelihood of his being a one-term president becomes almost a certainty.

Indeed, within a month or two we'll probably know how these examples turned out (and there are many more of these live tests going on elsewhere), and more generally, we will see if people come to recognize that following scientific guidance achieves better outcomes than ideology and preference. We will also be able to gauge how our leaders have done in facing the crisis – was their guidance helpful and protective or erroneous and fatal, timely or too slow, clearly communicated or muddled. A great many election outcomes will be determined by how this all unfolds.

More broadly, Covid-19 invites us to consider the attitude of the public in general towards science. Covid-19 gives us a live, real-time experiment in what happens when you follow the guidelines of science, or when happens when you don't follow science, but follow your preferences instead. The longer-term issue concerns the role of science in society and government: when their views or goals differ, shall we believe the scientists or the politicians, the scientists or the ideologues, the scientists or the shareholders?

Observation 5: Environment

The discussion about our attitudes regarding science take us directly to the topic of climate change, and the role of government policy in addressing it in a definitive way. As Neil Degrasse Tyson has pointed out, if we believe scientists when they predict a major eclipse (and we do, buying up eclipse-observation kits in massive quantities), then why do we not believe scientists who predict the effects of greenhouse gas emissions?

The obvious answer is that propagandists, motivated by the profit motive, have clouded the issue, but the deeper issue is that those same propagandists bring into question the role and value of science in society, and they have made it possible for politicians to engage in denial. Hence, the President Bolsonaro could, with a straight face, claim that satellite observations of fires in the Amazon rain forest were faked, because it was politically inconvenient for him to admit responsibility for the fires.

So this is the backdrop against which to consider the role of science in thinking about the environment. Will scientific views about environmental protection and climate change mitigation take hold in a society that has perhaps learned through the Covid-19 crisis that the guidance provided by science has added immense value to protecting and prolonging lives?

Another aspect of this that is relevant to Covid-19 is that for the first time in recent memory, there is clean air in many cities that under normal economic conditions are suffer chronically from intense pollution, and people are certainly noticing the contrast. The sharp curtailment of economic activity, that is, has resulted in stunningly cleaner skies.

This may lead many to wonder why, if we can afford to shut down economic activity for months because of Covid-19, and as a result we get cleaner air and in many places also cleaner water, and if governments sustain us during the crisis, then why should we go back to old ways, the polluting ways? Should we not curtail economic activity to protect our health and prolong our lives?

This kind of thinking would challenge a common perspective in economics, that economic growth is necessary no matter the environmental cost (which has been after all the explanation behind Trump's rollback of environmental regulations in the US).

In addition to cleaner air and water, a slightly longer term view also bring us to think about climate change, and the voices of science that have for a half-century been warning of drastic and fundamental change caused by greenhouse gases. Climate change deniers tell us to disregard the views of science, but if society broadly awakens to the realization that science is saving lives during the Covid crisis, then perhaps attitudes will shift regarding scientists' warnings about climate change as well.

Observation 6: Complexity and Systems Thinking

Scenario planning is an example of what happens when we take a systems perspective, that is, when we look beyond events and attempt to discern the longer-term patterns.

Systems thinking is itself a proven discipline in many of its forms, such as the field of Cybernetics, which led during the 1940s to many important inventions such as radar, which the British used to defend themselves from air attack, and in the 1950s, to the computer revolution that is still provoking massive change in our world today.

Systems thinking is also the basis of the field of Operations Research, which is used throughout the business world to seek improvements in complex systems such as global supply chains. Amazon, to take one example, employs entire teams of Operations Research PhDs to optimize its delivery systems using its own, proprietary algorithms. They are not simple algorithms, nor is the math behind them simple, but the results are a critical contributor to the company's success.

We at InnovationLabs are determined advocates for systems thinking, and here in our scenario planning context we are applying it in a rigorous manner even though it's not based on math, but on imagination and foresight.

Observation 7: How Crises Unfold

Crises like Covid-19 seem to unfold in three layers, or phases.

First there is the event itself, in this case the viral pandemic. Second is the immediate response, the actions that individuals and societies take as a consequence of the event. Emergency crews respond, leaders hold press conferences, mainstream media look to place the blame, social media process the consequences in peoples' lives, etc.

And then third are the longer-term impacts on lifestyles, as well as on attitudes, values, and expectations. These are often permanent, and they can fundamentally reshape societies.

Let's consider a few examples.

Fukushima: The 2011 Fukushima crisis in Japan, when the tsunami destroyed the Fukushima nuclear power station, created an immediate crisis in Japan with life threatening consequences in the immediate vicinity of the plant, which was quickly evacuated. But soon thereafter the Japanese shut all their nuclear power plants and suffered considerable economic and social impacts as a result. Technically this was not necessary, but socially it reflected the sentiment of the Japanese people that the nuclear reactors were a threat to the nation.

The impacts then spread beyond Japan, as Germany soon decided to shutter its own nuclear plants, and over the longer term the impact on the nuclear power industry has been decisive, and basically fatal. Public confidence in nuclear power plummeted almost immediately, and has never been restored. At the time of Fukushima there was one nuclear plant under construction in the US, but soon it, too, was abandoned, a $2 billion sunk cost.

Ironically, the town nearest to Fukushima called Futuba was set to reopen in March 2020 as the highly symbolic origin point of Japan's Olympic Torch relay, just as the Covid crisis has forced the postponement of those Olympics.

2008 Financial Crisis: Another example is the 2008 financial crisis, which had immediate and devasting impact as it spread from the US housing sector, to the banking sector, and then to the entire economy. The global economic consequences were immediate and severe, and government response was fast and effective in many places, but slow and even counter-productive in others. Greece, for example, suffered severely from the crisis and then perhaps even more severely from the remedy of the externally-imposed economic austerity, which among other impacts led to a rash of suicides as many people simply lost hope. Cruelly, Covid-19 arrives just as the parts of the world most severely impacted by the financial crisis of 2008 had just about fully recovered.

Of course we cannot know how the Covid-19 crisis will eventually resolve itself, or even if it will, but we can put forth some hypotheses for consideration.

The first thing to note is that it frequently happens that the most enduring impacts of crisis, rather than the crisis itself or the actions that is provokes, are the changes in attitudes that result over the longer term. How crises unfold simply change how we look at the world, and often in deep and permanent ways.

So what changes in attitudes might we see here?

About Capitalism: To stop the spread of the virus, governments have mandated people to stay home, which of course led the pace of capitalism to slow considerably, although not quite to a complete halt, simply because of the fears we now have of associating with one another and thereby contracting or passing along the fatal disease. Covid-19 is thus bringing about the first global pause in capitalism that has occurred in many decades, possibly the most significant since World War II ended in 1945.

For decades, in other words, we've been living on a capitalist treadmill, with progressively more of the world's population engaged in the capitalist system and dependent on weekly paychecks. Consequently, very few people are self-sufficient in any meaningful sense of the term, as the vast majority work for a business, small or large, that is itself a participant in the capitalist system.

So when the entire system slows not by choice, but by the force of law, we have a chance to pause and reflect, which of course raises quite understandable fears about how we're going to earn a living in the future, but which may also give some perspective on what it means to be

dependent on a paycheck in the first place, and why the larger socio-economic system is even structured that way at all. Will this raise a question in people's minds about capitalism itself? Will it lead people to wonder if capitalism is inevitably the right system?

Government's Role: One of the factors that may contribute to this mood of questioning is the emerging role of governments in responding to the crisis. As of this week, the governments of the US, UK, Germany, France, and Italy have reportedly committed $7.4 trillion combined to social and business support in their attempts to avert recession or depression. Since essentially none of the world's governments are operating at a surplus right now (other than Germany's), this means that most governments are taking on debt to subsidize society and keep the capitalist system functioning. But what does the debt mean? Will the existence of the new debt have long term consequences in the capital markets, and how will it affect the long term situation?

Further, if government can issue trillions of dollars in debt in a time of crisis, couldn't it also do so in "normal" times? This raises questions about the structure of government finance and the role of government in supporting society beyond the framework of crisis.

More About Health Care: As I mentioned above, a key areas of focus during the crisis is the health care system of each country and city, and in the US, health care has been a subject of intense disagreement for decades. One of the key underlying issues is the strident and ongoing debate about whether health care should be considered a "private good" which must be paid for in the context of capitalism, or a "public good" that any citizen should be entitled to regardless of their wealth or income. This is notable now because during the course of this crisis health care is being treated as a public good, and care is being provided regardless of an individual's health care insurance status.

Once the crisis passes and the American health care system attempts to reset itself as a private good, this will inevitably lead to a renewed debate about the role of public funds. Why, that is, should we have public-good health care in a crisis, but private-good health care in "normal times"? This is assuming, of course, that we actually do get back to normal times, in which case those advocating for health care as a public good will have ample evidence to support their position.

Observation 8: Education

Beyond the obvious disruptions to classroom education that this will cause for many months, if not longer, we should also expect that this crisis will be formative in shaping the views and attitudes of the entire generation that is presently in school. Their sense of what can and cannot be done, of what a good or poor response to crisis is, of what leadership is, and in some fundamental ways their views about community and their own futures will be heavily impacted by what is occurring now. We cannot know what those views will be, but we should expect that this will not be forgotten or taken lightly.

4. Imperatives

As I mentioned at the outset of this white paper, the thought progression in scenario planning uses the driving forces and resulting scenarios to inform our thinking, and then as the basis for more general observations about the specific situation at hand, as well as about the broader process of social adaption and evolution. And then come the imperatives, the things that we absolutely must do as individuals and as

organizations as result of what we have learned regarding the specifics and the generalities. Here are some imperatives that this thought experiment reveals:

Consider Many Possibilities: First, it's essential that leaders consider many possibilities, not just the one or ones that seem likely today. As the Covid-19 crisis shows, one day's truths are often irrelevant the following day, so relying on what see or believe today as solid and reliable is folly. This is of course the entire objective of this technique, and thus scenario planning recommends itself for all sorts of uncertainties, whether crisis-related or otherwise.

Do it Yourself: The second key point about scenario planning is that it's most valuable when you do it yourself. I've just walked you through our thought experiment step by step so that you can grasp both the process and the findings, but even more valuable would be for you to think it through for yourself. The underlying principle here is that just as you have to do your own sit-ups and push-ups to stay in shape, you also have to learn for yourself. Yes, you can trust the guidance of your advisors, but even then, nothing replaces your own thinking.

Do it as a Team: Even better than doing this alone is doing it in a team. If you gather the executive team, for example, for a two or three-hour discussion of strategy and options, it may be good to start with a solid hour of scenario planning. This is sure to have a big impact on everyone's thinking, and it will not only lead you to conclusions and decisions, it will also expose assumptions and clarify differences among team members, which will in turn result in better mutual understanding and enhanced teamwork.

Become Expert: When asked about how to adapt to living in confined quarters, astronaut Scott Kelly, who lived for a year aboard the International Space Station advised us to, "Become experts on the thing that is threatening you." While this is obviously good advice under any circumstance, it's essential during crisis times. The more you learn the better your decisions will be.

Temporary or Not?: And then we must ask if the crisis will end. While political leaders wouldn't dare to admit that this may be a permanent issue, you should consider that it may be, and think accordingly about what that would mean to yourself, your family, and your organization. This line of thinking can quickly become dystopian or apocalyptic, but that isn't the point. What is the point is to avoid making the assumption that it's going to be over fairly soon, and then putting in place what amounts only to a short term plan. It's fine and good if it does turn out to be short term, but if this drags on for months, through the summer or through the autumn or worse, then the sooner you consider what this means the better off you will be.

Because it will impact on your revenues, on your employees lives and families, on your customers, your supply chain, and the entire setting of society.

Thinking it through will cost you nothing but some time, while being unprepared for a prolonged disruption could cost you dearly.

5. Conclusion

As I have already stated, the purpose of scenario planning is not to predict the future, it's to prepare us to better deal with the vast uncertainties and ambiguities of the future. Consequently, if you find that you disagree with some of the ideas or suggestions I've made here, then that's absolutely fine as long as you keep in mind that your preference, likes, and dislikes are

not the point; we don't choose a scenario to adopt or believe because we like it best.

In fact, we shouldn't choose any one at all. It's the scope and totality of insights and awareness across multiple scenarios that makes this thought experiment most valuable.

Certainly some of the ideas here are implausible; but the entire situation that Covid-19 has forced onto the entire world is just as unlikely, but here we are. So set plausibility aside, and think instead of possibilities, of worse and worst case outcomes, of planning and protecting your family and your organization.

If all goes well and we get out of the crisis, then sooner or later we'll go back to work, sporting events will resume, the summer Olympics of 2020 will have a permanent asterisk noting that they occurred in 2021, while the record books will mention a missing year for the spring collegiate sports championships that were to have been held in 2020, but never were.

And even if the crisis ends sooner, of which there is no guarantee, the social and psychological impacts will remain. These will in all likelihood lead to changes in how we think about society, the economy, and health care, and could well result in changes to government policies on fundamental issues.

•••

As always, we welcome your comments and feedback on this white paper.

Contact us at LMorris@innovationlabs.com

6. Resources

Immediate Readings

- *The Economist.* An essential weekly resource for serious strategists and leaders. If you can get your hands on a copy of the March 21-27, 2020 issue, do so. It offers very detailed and well-reasoned reporting.
- Tom Joyce, Deutsche Bank US. "*Maximum Containment, Social Distancing & the Economics of Stoppage: 12 Unexpected Market and Economic Themes Defining 2020,"* March 2020.
- *Imperial College London*, Reports from MRC Centre for Global Infectious Disease Analysis.

Background Readings

- Langdon Morris. *Foresight and Extreme Creativity: Strategy for the 21st Century.* FutureLab Press, 2016.
- Langdon Morris. *The Big Shift: The 83 Most Important Changes that Everyone Should Know About, and the Big Shift that Changes Everything.* FutureLab Press, 2018.
- Langdon Morris. *The Agile Innovation Master Plan.* FutureLab Press, 2017.
- Adam Kahane. *Solving Tough Problems: An Open Way of Talking, Listening, and Creating New Realities.* Berrett-Kohler, 2004.
- Peter Schwartz. *The Art of the Long View: Planning for the Future in an Uncertain World.* Currency Doubleday, 1991.
- Shell Scenario Planning: https://www.shell.com/energy-and-innovation/the-energy-future/scenarios.html

InnovationLabs Scenario Planning

As noted above, over the last 20 years, InnovationLabs has completed many very successful consulting projects using scenario planning. We've trained more than 1000 senior executives of a global major oil company in scenario planning over an 8 year period, which contributed to the strategic agility of the company helping them manage more nimbly, and also in expanding their energy investment portfolio; we helped a global law firm think through how changes in the regulatory and social landscapes would impact their practices around the world; and we have helped some of the most important professional societies in the medical field anticipate how change would inevitably affect the practice of medicine.

We also use scenario planning as a key tool in our work related to innovation management, as it is a major resource for innovation planning and targeting. In our overall innovation framework model, *The Agile Innovation Master Plan*, we describe how scenario planning helps senior leaders define ideal innovation portfolios, and gives strong guidance to their ongoing innovation efforts.

•••