Stay sceptical. End the lockdown. Save lives.

All material taken from LockdownSceptics.org, an anti-lockdown website created by Toby Young.

Britain's Covid Reich

11 May 2020

by Guy de la Bédoyère



All states progress towards totalitarianism. This does not mean that they will get there, or even get very far along the way, though some do. But the direction of travel is always towards totalitarianism. The only possible way of preventing this is constant vigilance.

The totalitarian state is defined by an intolerance of diversity, whether in thought or behaviour. The use of propaganda is an essential ingredient in establishing not only all forms of intolerance of diversity but encouraging widespread support for them. The propaganda is integral to the state's ideology, itself built around usually the depiction of a utopian future, however implausible. The end justifies the means. Intolerance is enshrined in the ideology, enforced through the annihilation of political opposition, control of the media, and control of the economy. The unifying of society against a common enemy is often another vital ingredient.

By definition the totalitarian state never achieves its goals other than in lies and dissimulation. Therefore, dissent to some degree is inevitable. As failure mounts, so does dissent. As the promised land retreats, so the state moves to the next stage which is to enforce compliance, provoked by claiming that the dissenters are responsible for compromising the state's success. Intolerance of diversity has now progressed to oppression.

One of the most remarkable aspects of the creation of Britain's Covid Reich was that even in the middle of the government's witless, confused and ambivalent approach to the crisis it was able to rustle up overnight many of the key ingredients of totalitarianism. The ideology and the slogans, and the continual repetition of the message with the supine assistance of broadcast media all fell into place with frightening speed. The speed with which the Great British Public acquiesced was even more alarming.

Stay sceptical. End the lockdown. Save lives.

It's not hard to find comparisons for the totalitarian's mandate for how our country has been transformed in recent weeks. Here's something Hitler came up with in 1923–4:

The goal and the way have to be determined by the care for the preservation of our people's health in body and soul. The right of personal freedom steps back in the face of duty of the preservation of the race.

Adolf Hitler, Mein Kampf, p.348 (New York: Reinel and Hitchcock, 1940)

Of course, it's quite easy to see that taken like that the argument seems not unreasonable. That is part of the beguiling nature of totalitarianism. It is most likely to burst into a life in a state beleaguered by an existential threat, with terror permeating society and exacerbated by the state's exploitation of fear to assert control. That was why totalitarianism took off in Germany in the 1930s in the aftermath of the devastating effects of the Great War and the Depression. Italy went down the same route. Technically a victor, Italy had also suffered extreme economic hardship and social disruption and moved even more quickly into totalitarianism. The Soviet Union, despite its diametrically opposed ideology, developed its own form of totalitarianism for some of the same reasons. Totalitarianism was fraudulently presented as the solution to jeopardy, and terror used lavishly to focus popular fear on the enemies of the state to divert the people's attention from their true enemy, the state itself. It's precisely how North Korea operates today.

Of course, totalitarianism does not come just from the state. The state is also the manifestation of a nation's collective consciousness. Incipient totalitarianism is a perpetual feature of human society. Religion has always veered towards totalitarianism in its intolerance of other cults, and its use of authority and enforced compliance to survive. Today the religious cult of environmentalism has taken on the same mantle. Regardless of the practical methods available to us to deal with environmental issues, it has been fascinating to see how environmentalists have used the fear of ecological Armageddon to try and terrify the population into acquiescing to their beliefs. Intolerance of diversity of opinion pervades every aspect of environmentalism and is constantly buoyed along with threats of coercion.

It is a short jump to realizing how delighted environmentalists would be if we were all confined to our homes and prevented from travelling. Indeed, David Attenborough has already expressed his wish that aspects of the lockdown become permanent, like working from home.

One could even go so far as to suggest that some of the more vocal proponents of enforcing extreme environmentalism have succeeded in softening up society to the idea of totalitarianism.

It's no great surprise that the young are the most willing supporters of Britain's Covid Reich. We have already seen through countless recent examples at university how intolerant of diversity the young can be. They include not only some of the most fervent environmentalists but also those who resort instantly to suppression, censorship and even veer towards violence to refute any opinions that vary from their own. Ironically, as we now know all too well, it is the young whose risk from the virus is insignificant to the point of irrelevance when set against the panopticon of risk we face merely by living on this planet. Yet the message of fear seems to have had a more insidious effect on them than any other group. They are some of totalitarianism's most useful idiots with their easier acceptance of monochrome posturing.

Britain's overnight Covid Reich has many of the aspects of a true totalitarian state. Built on fear and state protection, it has some way to go yet but the signs of where it could proceed are already there. Ironically, one of its greatest weaknesses is that the government has not sold, and cannot sell, the lockdown on a promise of utopia. The only

Stay sceptical. End the lockdown. Save lives.

prospect if it continues is the very economic devastation that causes the rise of totalitarianism. If that becomes a hideous and sustained reality, then it will be a case of "you ain't seen nothing yet".

The gradual disintegration of the lockdown, with the police complaining it is becoming unenforceable, is something to welcome. It represents the decline of the state's power and the refutation of totalitarianism. At this point the true totalitarian state turns on its people, blaming its followers for disloyalty to the ideology and betraying the sacred mission, and imposes further mechanisms for enforcement. We all know where that leads. Most totalitarians are fools because they become entrapped in a futile effort to enforce their intolerance of diversity while at the same time berating the people for betraying the nation. We have already seen the government and some police starting down that route, the latter gleefully employing denunciation of the non-compliers and encouraging informants.

And therein lies something of a glimmer of hope. It's just possible that for once Boris Johnson is being as clever and as wily as both his supporters and opponents suspect he can be. If he continues down the line of enforcing the lockdown, as a true totalitarian would do and willing aided by his agents, he will provoke ever more subversion and resistance leading inevitably to his government's downfall as its authority is eroded away.

Boris Johnson has very probably realized that. By relaxing the lockdown in an ambiguous and ambivalent way he can be seen to be presenting that easing as being in his gift, rather than it being simply taken from him. The other benefits to Boris Johnson are several. He will avoid the inevitable fate of a totalitarian leader. Yes, he's left people and organizations confused and bewildered, not least by the unexpected need to start making a certain number of decisions for themselves, but that is probably deliberate.

He will leave petty devolved gauleiters like Nicola Sturgeon completely wrong-footed and resorting to their own brands of parochial totalitarianism in an attempt to shore up their authority in their fiefdoms. Indeed, Sturgeon has been left frothing at the mouth in frustration. If she follows in his footsteps, she is an irrelevance. She is therefore left only with the choice of being more relaxed or carrying on whipping up fear to keep the lockdown in place. For the rest of us, the very vagueness of Johnson's message will pluck us out of the hermetically sealed totalitarian world in which our every waking moment is cared for, now even paid for, by the state.

I have no idea if any of that is true. Perhaps Johnson has simply lost the plot as power begins to run like sand through his hands. He still paid lip service to Neil Ferguson's dubious and discredited prediction of half a million victims if the lockdown hadn't followed. But perhaps that was just a clever ploy to convince some that he was still 'on message' even as he surreptitiously pulled the rug away beneath it.

We really are at a fork in the road. In one direction lies the complete end of everything we have ever held dear and a life literally not worth living, a mere spectral existence in a paralyzed and terrified surveillance state of agoraphobics queuing up like mendicant friars for government handouts. In the other lies some sort of chance to learn to live with the virus crisis and use self-determination to overcome it within the context of all the other challenges we face. For Boris Johnson the prospect is simple. He either becomes an undisguised totalitarian and goes the way of all such

"We are at a fork in the road. In one direction lies the complete end of everything we have ever held dear In the other lies some sort of chance to learn to live with the virus crisis and use self-determination to overcome it within the context of all the other challenges we face."

leaders, or he uses his consummate political skills to worm his and our way out of this mess while leaving his critics floundering in his wake.

I know which one I'm hoping for.

Stay sceptical. End the lockdown. Save lives.

COVID-19 as a Workplace Hazard (Part 1)

15 May 2020. Updated 26 May 2020.

I'm an occupational health doctor. I run a small consultancy and my clients consist of local SMEs and some larger corporates. We do a whole range of workplace related medicals, including fitness to work decisions. I have very serious concerns about how the COVID-19 response is impacting on business.

Background to the Problem

COVID-19 is now being treated as a workplace health hazard, similar to asbestos or pathogens in a biological laboratory. This could have disastrous consequences for the economy which relies on people being able to attend work.

The initial response of business to Covid-19 was reasonable. It posed an equal risk in any setting, and it was only natural that employers would need to accommodate the same sorts of measures to slow its spread as were required in all other aspects of life and in any other setting (i.e. frequent hand washing, minimising close contact with others, etc). Early on, employers responded quickly to enable their employees to adhere to the generic public health guidance when they were in the workplace.

However, there is now an increasing tendency for COVID-19



to be regarded as a workplace hazard. This is not entirely unjustified in certain occupational groups, where early data suggest there might be some increased risk, but it is striking that front-line NHS staff do not appear to be such a group. My concern is that regarding COVID-19 as a workplace hazard on a par with asbestos or radiation is not helpful.

This obsession with COVID-19 as a workplace hazard has arisen for several reasons.

With the lockdown, the workplace suddenly became the most likely site of transmission of the infection for many people, but this is an artificial situation created by an extraordinary and necessarily brief adjustment to ordinary life – it is being reversed as we speak.

It may also have stemmed from the idea that NHS staff were at far greater risk of contracting COVID-19 because of their work role on the "front line". I understand that we now know this to be unlikely. Workers are just as likely to acquire it at home, in the shops or on public transport.

Stay sceptical. End the lockdown. Save lives.

Significant discussion in the media about PPE (personal protective equipment) adds to the perception that COVID-19 is a workplace hazard. As the term indicates, the aim is to protect the wearer from some external hazard in their work environment. How could we have such fevered debate about inadequate provision of PPE without there being a serious workplace hazard?

But, accepting a few occupational groups who may be at a marginally increased risk, COVID-19 is likely to pose the same risk to individuals regardless of work. There are other types of hazard which affect workers and non-workers equally, for example natural background radiation and seasonal flu. Neither of these are specific to the workplace (with a few exceptions such as aviation or specialised labs). Never once have I come across influenza virus being regarded as a workplace hazard, even though it is quite possible one could contract it whilst at work. Some companies offer flu vaccine to staff, but not because of a duty of care to protect their staff from contracting

"Never once have I come across influenza virus being regarded as a workplace hazard, even though it is quite possible one could contract it whilst at work."

flu whilst in work; rather it is offered in the belief that it helps reduce sickness absence in the flu season.

During a national co-ordinated response to COVID-19, it is inevitable that workplaces will need to play their role in slowing transmission of the virus throughout the population, and this might make COVID-19 look like a hazard unique to the workplace, but it is not.

The Problem

An exaggerated perception of the risk that COVID-19 poses in workplaces will cause major problems for UK businesses and operations of all kinds.

COVID-19 (or our response to it) has transformed every workplace in the land into a high risk work environment. There are many types of high-risk work environment – nuclear industry, asbestos removal, biohazard labs. We know where these are and generally the UK has excellent systems for protecting employees, but in all of these settings there is a significant support infrastructure in the background. You need health and safety officers, hygienists, specialist cleaning staff and doctors and nurses to assess individual fitness. Environments are risk assessed, adjusted and improved, cleaned and monitored. It's a big effort.



The current perception of the risk posed by COVID-19 means that the entire UK's place of work has become high risk, and borderline lethal. In fact, a laboratory processing dangerous pathogens would be a far preferable place to work. At least in the laboratory you know exactly where the pathogens are. You can isolate and contain them. You can easily identify staff most at risk (the one's handling things in the extraction cabinet). This means the risk of contamination is extremely low, and your workers can be reassured that the threat is contained. Not so with the post COVID-19 workplace (which is now every workplace in the land) – here you have no hope of

knowing where the pathogen is. You cannot contain it. You must put in place universal distancing and cleaning measures throughout every part of your operation. You must issue PPE, with all of the regulations surrounding the provision of PPE. You must screen every employee with an underlying medical condition to determine if they are safe to even enter the workplace.

Stay sceptical. End the lockdown. Save lives.

The sense of risk to businesses is heightened by the knowledge that COVID-19 infection could even be RIDDOR reportable (formally reported to HSE as a disease caused by a biological agent present in the work environment).

Many news articles are perpetuating the view of COVID-19 as specifically a workplace hazard, and a particularly lethal one, such as this one in the *Guardian* https://www.theguardian.com/world/2020/may/12/dancing-with-thedevil-safety-concerns-rife-among-people-forced-back-to-work.

Every single employee, returning to almost any workplace in the country, now needs to be risk assessed to characterise the risk to their safety. For many, this will be a quick process. But for many others with common, chronic health conditions (who will number several millions nationally), it will require significant resource to undertake assessments. As there is little guidance available and given the fear of a backlash from the media, unions, lawyers or the authorities, many employers will feel forced into excluding workers, even where there is little evidence that this is necessary. Employees may feel forced back in fear of their lives, whilst others will not be allowed back despite being desperate for a return to normality.

Final Comment

I'm greatly concerned that the "new normal" will create an environment in which businesses will struggle to survive.

I can accept that workplaces need to make changes, and they must be encouraged to do this through reasonable means. I can accept that transmission will occur in workplaces and this should not be ignored. There needs to be accommodation for those shielding to remain at home. But employers cannot be made responsible for the misery of COVID-19, or blamed for its transmission in society. Businesses should be encouraged to play their role (and in my experience, they are – to an extreme degree), but they should not have to try and get the nation back to work whilst fearing sanctions because of a hazard that is universally present.

This week I've been wading through pages of medical guidance on how we can medically risk assess every medical condition. Alongside all of the other impacts, such as social distancing reducing office occupancy to less than 30% of normal, high sickness for months as self-isolation policies continue, dealing with the palpable fear among staff, and coping with serious wider economic challenges, I struggle to see how this situation can be remotely sustainable for businesses.

I accept that for some workers, COVID-19 might make the workplace a hostile environment, and this needs prioritising and addressing. But I also fear that business itself is at risk of finding itself in a hostile environment, and one that many businesses will not survive.

Code Review of Ferguson's Model

6 May 2020. Updated 10 May 2020.

by Sue Denim

Note: Sue Denim did several follow-up analyses which are available at LockdownSceptics.org

Imperial finally released a derivative of Ferguson's code. I figured I'd do a review of it and send you some of the things I noticed. I don't know your background so apologies if some of this is pitched at the wrong level.

Stay sceptical. End the lockdown. Save lives.

My background. I have been writing software for 30 years. I worked at Google between 2006 and 2014, where I was a senior software engineer working on Maps, Gmail and account security. I spent the last five years at a US/UK firm where I designed the company's database product, amongst other jobs and projects. I was also an independent consultant for a couple of years. Obviously, I'm giving only my own professional opinion and not speaking for my current employer.



The code. It isn't the code Ferguson ran to produce his famous Report 9. What's been released on GitHub is a heavily modified derivative of it, after having been upgraded for over a month by a team from Microsoft and others. This revised codebase is split into multiple files for legibility and written in C++, whereas the original program was "a single 15,000 line file that had been worked on for a decade" (this is considered extremely poor practice). A request for the original code was made 8 days ago but ignored, and it will probably take some kind of legal compulsion to make them release it. Clearly, Imperial are too embarrassed by the state of it ever to release it of their own free will, which is unacceptable given that it was paid for by the taxpayer and belongs to them.

The model. What it's doing is best described as "SimCity without the graphics". It attempts to simulate households, schools, offices, people and their movements, etc. I won't go further into the underlying assumptions, since that's well explored elsewhere.

Non-deterministic outputs. Due to bugs, the code can produce very different results given identical inputs. They routinely act as if this is unimportant.

This problem makes the code unusable for scientific purposes, given that a key part of the scientific method is the ability to replicate results. Without replication, the findings might not be real at all – as the field of psychology has been finding out to its cost. Even if their original code was released, it's apparent that the same numbers as in Report 9 might not come out of it.

Non-deterministic outputs may take some explanation, as it's not something anyone previously floated as a possibility.

The documentation says:

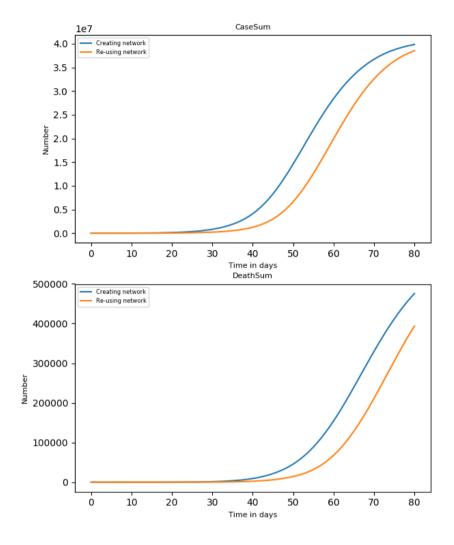
The model is stochastic. Multiple runs with different seeds should be undertaken to see average behaviour.

"Stochastic" is just a scientific-sounding word for "random". That's not a problem if the randomness is intentional pseudo-randomness, i.e. the randomness is derived from a starting "seed" which is iterated to produce the random numbers. Such randomness is often used in Monte Carlo techniques. It's safe because the seed can be recorded and the same (pseudo-)random numbers produced from it in future. Any kid who's played Minecraft is familiar with pseudo-randomness because Minecraft gives you the seeds it uses to generate the random worlds, so by sharing seeds you can share worlds.

Clearly, the documentation wants us to think that, given a starting seed, the model will always produce the same results. Investigation reveals the truth: the code produces critically different results, even for identical starting seeds and parameters.

I'll illustrate with a few bugs. In issue 116 a UK "red team" at Edinburgh University reports that they tried to use a mode that stores data tables in a more efficient format for faster loading, and discovered – to their surprise – that the resulting predictions varied by around 80,000 deaths after 80 days:

Stay sceptical. End the lockdown. Save lives.



That mode doesn't change anything about the world being simulated, so this was obviously a bug.

The Imperial team's response is that **it doesn't matter**: they are "aware of some small non-determinisms", but "this has historically been considered acceptable because of the general stochastic nature of the model". Note the phrasing here: Imperial know their code has such bugs, but act as if it's some inherent randomness of the universe, rather than a result of amateur coding. Apparently, in epidemiology, a difference of 80,000 deaths is "a small non-determinism".

Imperial advised Edinburgh that the problem goes away if you run the model in single-threaded mode, like they do. This means they suggest using only a single CPU core rather than the many cores that any video game would successfully use. For a simulation of a country, using only a single CPU core is obviously a dire problem — as far from supercomputing as you can get. Nonetheless, that's how Imperial use the code: they know it breaks when they try to run it faster. It's clear from reading the code that in 2014 Imperial tried to make the code use multiple CPUs to speed it up, but never made it work reliably. This sort of programming is known to be difficult and usually requires senior, experienced engineers to get good results. Results that randomly change from run to run are a common consequence of thread-safety bugs. More colloquially, these are known as "Heisenbugs".

Stay sceptical. End the lockdown. Save lives.

But Edinburgh came back and reported that – even in single-threaded mode – they still see the problem. So Imperial's understanding of the issue is wrong. Finally, Imperial admit there's a bug by referencing a code change they've made that fixes it. The explanation given is "It looks like historically the second pair of seeds had been used at this point, to make the runs identical regardless of how the network was made, but that this had been changed when seed-resetting was implemented". In other words, in the process of changing the model they made it non-replicable and never noticed.

Why didn't they notice? Because their code is so deeply riddled with similar bugs and they struggled so much to fix them that they got into the habit of simply averaging the results of multiple runs to cover it up... and eventually this behaviour became normalised within the team.

In issue #30, someone reports that the model produces different outputs depending on what kind of computer it's run on (regardless of the number of CPUs). Again, the explanation is that although this new problem "will just add to the issues" ... "This isn't a problem running the model in full as it is stochastic anyway".

Although the academic on those threads isn't Neil Ferguson, he is well aware that the code is filled with bugs that create random results. In change #107 he authored he comments: "It includes fixes to InitModel to ensure deterministic runs with holidays enabled". In change #158 he describes the change only as "A lot of small changes, some critical to determinacy".

Imperial are trying to have their cake and eat it. Reports of random results are dismissed with responses like "that's not a problem, just run it a lot of times and take the average", but at the same time, they're fixing such bugs when they find them. They know their code can't withstand scrutiny, so they hid it until professionals had a chance to fix it, but the damage from over a decade of amateur hobby programming is so extensive that even Microsoft were unable to make it run right.



No tests. In the discussion of the fix for the first bug, Imperial state the code used to be deterministic in that place but they broke it without noticing when changing the code.

Regressions like that are common when working on a complex piece of software, which is why industrial softwareengineering teams write automated regression tests. These are programs that run the program with varying inputs and then check the outputs are what's expected. Every proposed change is run against every test and if any tests fail, the change may not be made.

The Imperial code doesn't seem to have working regression tests. They tried, but the extent of the random behaviour in their code left them defeated. On 4th April they said: "However, **we haven't had the time** to work out a scalable and maintainable way of running the regression test in a way that allows a small amount of variation, but doesn't let the figures drift over time."

Beyond the apparently unsalvageable nature of this specific codebase, testing model predictions faces a fundamental problem, in that the authors don't know what the "correct" answer is until long after the fact, and by then the code has changed again anyway, thus changing the set of bugs in it. So, it's unclear what regression tests really mean for models like this – even if they had some that worked.

Stay sceptical. End the lockdown. Save lives.

Undocumented equations. Much of the code consists of formulas for which no purpose is given. John Carmack (a legendary video-game programmer) surmised that some of the code might have been automatically translated from FORTRAN some years ago.

For example, on line 510 of SetupModel.cpp there is a loop over all the "places" the simulation knows about. This code appears to be trying to calculate R0 for "places". Hotels are excluded during this pass, without explanation.

This bit of code highlights an issue Caswell Bligh has discussed in your site's comments: R0 isn't a real characteristic of the virus. R0 is both an input to *and an output of* these models, and is routinely adjusted for different environments and situations. Models that consume their own outputs as inputs is problem well known to the private sector – it can lead to rapid divergence and incorrect prediction. There's a discussion of this problem in section 2.2 of the Google paper, "Machine learning: the high interest credit card of technical debt".

Continuing development. Despite being aware of the severe problems in their code that they "haven't had time" to fix, the Imperial team continue to add new features; for instance, the model attempts to simulate the impact of digital contact tracing apps.

Adding new features to a codebase with this many quality problems will just compound them and make them worse. If I saw this in a company I was consulting for I'd immediately advise them to halt new feature development until thorough regression testing was in place and code quality had been improved.

Conclusions. All papers based on this code should be retracted immediately. Imperial's modelling efforts should be reset with a new team that isn't under Professor Ferguson, and which has a commitment to replicable results with published code from day one.

On a personal level, I'd go further and suggest that all academic epidemiology be defunded. This sort of work is best done by the insurance sector. Insurers employ modellers and data scientists, but also employ managers whose job is to decide whether a model is accurate enough for real world usage and professional software engineers to ensure model software is properly tested, understandable and so on. Academic efforts don't have these people, and the results speak for themselves.

A Postcard from Brazil

11 August 2020. Updated 12 August 2020.

I'm sitting on my balcony here in Vitoria, capital of the beautiful Brazilian state of Espirito Santo, on a beautiful Sunday afternoon. Blue skies, beautiful people, and a temperature that is always warm but never hot. Below me, I'm looking out on the typical hustle and bustle of city life. Restaurant terraces are packed, and a young man is dancing with a young woman who is certainly not in his social bubble, all to the music of a live samba band.

This joyful daily life is now an act of rebellion. Our Governor just made another stern pronouncement on the news admonishing people to follow the rules of *distanciamento social* and threatening to impose harsher restrictions. As a Canadian who has lived here for three years now, sometimes I think I'm the only one who follows the news. Everyone else just goes on living. Despite being in the epicentre of what the Western media breathlessly calls one of the world's worst coronavirus outbreaks, most people here are going about their life. They called a lockdown and nobody came.

Stay sceptical. End the lockdown. Save lives.

An earlier bike ride along the beach found the sand packed with scantily clad men and women playing football and volleyball. Despite a recent law proclaiming masks to be worn in all public places, I observed the take up being probably less than 20%. My Brazilian wife, unfortunately, is a bit of a rules enthusiast and she insisted we wear masks for our ride in a display of good citizenship.



A few minutes in, she complained she was getting a mask tan, and so took it off, never to be seen again. I can't help but think this act sums up how lockdown went for the whole country.

The first few weeks of the lockdown went as scripted. The city became deserted, as if the vírus was an invisible poison gas that floated through the air. The doom-laden voice of the Governor pronounced that all businesses would be shut and everyone should stay home and not leave unless *absolutely* necessary. A truck with a speaker on the back circulated while playing menacing piano

music over a recording about the dangers of the CO-RONA-VEERUS and how everyone should hide under their beds.

Two months later, things changed. The world's most sociable culture didn't take well to being isolated. Hand to mouth workers weren't going to wait and see if they would starve to death before being allowed to work again. Most people, even if they posted differently on Instagram, decided the lockdown was over.

The media, of course, laid this all at the feet of Brazil's right wing president, as if he had unleashed the vírus on his own people by calling local antisocial distancing mandates "dictatorial" and opining that they would result in more deaths than the vírus itself (he was, it turned out, probably right). But I think most Brazilians started getting on with their lives of their own accord.

The truth is that many Brazilians live hard lives and don't want to be told by some politician that they now had to quake in their boots at home, unable to see their loved ones, have a beer with their friends, have casual sex, or do any of the things that makes Brazil great or life worth living.

Of course, Brazil paid for this. The death count recently passed 100,000, although they are mainly sickly senior citizens who would have died of something else in the next year anyway. Regardless, the country is now held up as a cautionary tale of what can go wrong if you don't lock down. However, despite the models of "Professor Lockdown" which indicate that the death toll should be in the millions by now, neither my wife or I know anyone who has tested positive, let alone died. Six months in, and there is a conspicuous lack of rotting corpses strewn over Ipanema. Going against the predictions of the crybaby Minister of Health (since fired) that Brazil's medical system would collapse by April, hospital beds were never more than 80% occupied in major capitals. Of course, now the "flatten the curve" experts say hospital bed use isn't a useful metric, despite at first urging social distancing to... preserve hospital beds.

If you look at the seemingly large casualty count, Brazil's per capita death toll, in a population of 207 odd million, is lower than Belgium, France, Spain, Italy, the UK, Sweden, and the United States. Of course, the experts now say that deaths per capita isn't an accurate metric, and it is in no way illogical to directly compare massive Brazil to tiny New Zealand.

Oh, if only St. Jacinda was here!

Stay sceptical. End the lockdown. Save lives.

Brazilians are canny people. They realized that there was no way for the underfunded and incompetent police to enforce any restrictions. I've been treated nightly to scenes on TV of illegally open bars in Rio de Janeiro, where crowds of soused revellers packed in shoulder-to-shoulder to sing "eu não vou embora!" or "We aren't going away" to slack-jawed teams of municipal guards (traffic cops) trying to shut them down. A local lawyer became somewhat of a hero for publicly ripping up a ticket given to him for not wearing a mask.

The lockdown-breaking locals started to find allies among politicians who understood that the mass poverty inflicted on Brazil's hard won middle class and desperate poor by lockdowns would be devastating... for them at the polls. Most large cities decided to re-open pretty much everything, from shopping malls to tourist sites, despite *rising* case counts, to the shock and horror of bedwetters world wide. The logic of the politicians? That the medical system had proven it could cope, therefore people should start getting back to work. Heresy! Nobody talks about second waves outside of surfing contexts. For beleaguered Brazilians, coronavirus is just another endemic circulating disease they will have to live with, just like dengue, zika, yellow fever, and so on. Also, as I am told by my neighbours, hiding won't build herd immunity.

They may have a point. Despite high national case numbers, Brazilian cities that were struck hard early on have now seen new cases, hospitalizations, and deaths fall off a cliff around the 20% infected mark, just like clockwork. Of course, we all know that herd immunity cannot be reached and would result in hundreds of thousands of deaths and

untold suffering blah blah. So what explains these drops? Will we hear the English language media discussing this? Will pigs fly?

With the numbers now falling in my state as well, I shake my head daily at the bizarro world pronouncements of the state Governor proclaiming that beaches and hiking trails, to which people have been flocking for months, are now open. Restaurants are now allowed to operate until 6pm, despite the swanky spot down the block having been open until 2am every night since the beginning of the pandemic, pumping loud music. I suspect bribery.

The death count keeps rising by thousands every day, but optimism abounds. The private sector recently announced the construction of a new factory that will produce 30 million doses of the Oxford vaccine every month. An ambitious goal, which the media immediately said was impossible. The Chinese vaccine will also be produced, but nobody wants to take it.

"Nobody talks about second waves outside of surfing contexts. For beleaguered Brazilians, coronavirus is just another endemic circulating disease they will have to live with, just like dengue, zika, yellow fever, and so on. Also, as I am told by my neighbours, hiding won't build herd immunity."

Meanwhile, folks in Canada gleefully participate in using social media to shame those who gather in large groups, dance, drink, or sing, while reminding everyone about how the new normal involves great personal sacrifice to slow the relentless spread of this deadly new virus with a 99.7% survivability rate. The only acceptable level of flatness for the curve is zero cases forever, otherwise complete disaster. And it's all going to be your fault!

I'm going to stay here, thanks. I got the beach, I got the sun, I got my friends, and, as long as I stay away from the media, I'm surrounded by positive, hopeful people. Heck, last week the borders opened for international tourism, no negative test required, no quarantine. Over 60s just need to, wisely, carry health insurance. Seeing as both my wife and I are under 80 and not obese, we have little to fear.

For Brazilians, death is a part of life. Fatalities could be 100,000, they could be 200,000, they could be 2 million. No amount is going to stop them from living, consequences be damned.