distinguished tasks of the philosophy of technology must again be to develop an integrative notion of socio-technical progress in order to make our technosphere truly and sustainably habitable. When it comes to ethical reflection, it will be vital to bring ethical reflection to the achieved level of the productive forces and to avoid any arguments based on dubious assumptions of a 'given' scarcity of resources (such as those in the current discussions about 'triage' in which the use of this term echoes the economic war waged against the health systems in many countries).

In order to be able to really help "open the black box of *Sachzwang*", STS need to re-invent their own field. If successful, such a re-invention may also give philosophy of technology a crucial role in regaining our "power to imagine another world for ourselves".

## Langdon Winner

## The Virus Is a Catalyst, Society Itself the Disease

As the Covid-19 pandemic runs its course, the quest to draw lessons from its rise, spread and eventual consequences will surely engage public health professionals, policy makers, social scientists, and philosophers for many years to come. One topic of fascination will be the variety of ways in which different nations and populations around the world have responded to the outbreak and the grim challenges it presents them. While it is premature to draw any firm conclusions, some preliminary comparisons may be helpful in our thinking going forward.

In important respects the virus, SARS-CoV-2, can be seen not only as the cause of the numerous physical maladies associated with Covid-19 infections, but also a pungent catalyst for the reactions and strategies of widely different societies. Among the obvious questions that arose at the outset were these. Who would take a leading role in defining key issues? What options would be imagined and tried? How soon? Thus, what methods for monitoring the spread of the virus would be instituted? What measures for preventing and treating infections should be organized and how broadly? How would the populace as a whole respond to initiatives proposed by scientists and political figures? In what ways might important institutions alter their basic form and methods of operation? From the standpoint of political philosophy, these issues suggest basic questions about the features of civic culture and how particular cultures might be compared.

Given the fact that by February 2020 most world societies were becoming aware of the possible onset of a coronavirus pandemic, it is possible to recognize and compare some basic patterns of response. Some nations were quick in understanding the

basic challenges facing them. For a variety of reasons, other countries were rather slow in taking the threat seriously at all. Some charted and implemented practical strategies fairly soon, while others dithered in controversies about which theories could account for the coming (or imagined disappearance) of pandemic. Drawing upon trusted medical experts and political leaders, some societies were able to forge a fairly unform, widely shared agreement on policies offered as "best available under the circumstances," especially ones in which no vaccine or effective pharmaceuticals were yet available, leaving only social responses – lock down, quarantine, social-distancing, masking and the like – as the only practical measures. Other nations — especially those in which strong political divisions prevented adoption of widespread, consensual social measures — dithered for weeks, months and even longer about what reasonable reactions and strategies were applicable.

As we await later, more reliable, long term sources of information, a reasonable strategy is to compare nations that seem to have done fairly well in their efforts to contain the virus and its effects as compared to those who attempts were clearly less impressive. Thus, it seems that several countries – New Zealand, Taiwan, South Korea, Iceland, Australia, China, and others have (with occasional rocky fits and starts) managed to bring the virus under reasonable control. Other nations -- among them the United Kingdom, Argentina, Brazil, Spain, and the USA – have fared very poorly as measured by total cases and deaths.

One suggestive comparison involves the strategies of Taiwan and the USA. We know that leaders of both countries received credible information about the disease in January 2020. At that point the President of Taiwan, Tsai Ing-wen, spoke to the nation as a whole proposing systematic collection of steps that would involve medical professionals, public officials, and especially the citizenry as a whole: strict control of the nation's borders, methods of testing and tracking to detect incidents of infection and their spread; social-distancing; strict limitation upon places of social gathering (schools, restaurants, bars, offices, etc.).; requirements for widespread wearing of masks; etc. The message was soon greeted by the country's citizens as an expression of the need for cultural and political solidarity. Fully aware of a somewhat similar SARS scare in 2003, Taiwanese pulled together to take the limited but promising practical steps available to them. As a result, the country of about 23.8 million persons succeeded in curtailing the disease to an astounding degree: a total of 550 cases and only 7 deaths by autumn 2020.

By comparison, the USA with a population of 331 million at the beginning of the year, suffered severe troubles in crafting a coherent, effective plan to respond to the Covid-19 threat.

Within a civic culture that featured widening gaps of economic inequality, yawning political divisions bordering on tribalism, bitter policy battles, eruptions of racial conflict, and unsteady presidential leadership that included open distrust of scien-

tific expertise, the country bumbled through a scattered, unfocused collection of measures that left responsibility to governors of the fifty states as well as to the choices of scattered, largely uncoordinated institutions and the whims of the populace as a whole. Faced with expert advice that stressed the need for widespread masking, much of the citizenry (especially supporters of President Donald J. Trump) decided that wearing a mask was (1) an unattractive fashion item and (2) an offensive infringement upon one's personal freedom. Mr. Trump himself reinforced such beliefs by denouncing masking and refusing to wear one himself. Other signs of derangement in the nation included frequent gatherings of unmasked persons, get-togethers associated with 'opening up the economy' and affirming precious citizen liberties, events eventually recognized as 'super spreaders' that increased the speed of coronavirus infection coast to coast. While there were other social and physical factors involved, the nation's poorly focused response contributed to a ghastly human toll. At this writing some cases of illness and 240,000 deaths have resulted from the Covid-19 outbreak in the U.S.

Of course, making statistical comparisons between Taiwan and the USA with regards to their pandemic profiles is a risky matter. The two countries are widely different in geographical size and configuration, one a rather small island, the other a vast, sprawling mass of land on a huge continent. They also have widely different backgrounds in their respective populations, economies, political systems, and basic civic cultures. Indeed, much of the willingness of the people of Taiwan to embrace common needs necessitates a social strong solidarity, in this case stemming from the omnipresent threat to the country's existence posed by mainland China. The list of circumstances that accounts for what any given nation is inclined to do in a particular emergency is, of course, very large indeed.

Nevertheless, some simple, obvious calculations point to a disturbing difference. The population of the USA is roughly 14 times that of Taiwan. Taking that basic multiple at face value, if the USA had achieved a national shutdown and firm, widely shared social consensus on Covid-19 comparable to that of Taiwan, its number of deaths would have been about 100 persons rather than the roughly quarter of a million U.S. casualties by late 2020.

The Taiwanese scholar, Hsin-Hsing Chen, who helped me locate the basic data and formulate the astonishing contrast, also shared one widely recognized, amusing feature of how his country has been able to hold the number of illnesses and deaths to such a miniscule level. "Along our streets, on mass transit and in public buildings one sees little old ladies walking past who will yell and shake their umbrellas at anyone who is not wearing a mask!" Thus, the everyday workings of Taiwan's virus control strategy included a tough, highly effective (perhaps unexpected) means of social enforcement. Alas, the USA now lacks any such widely recognized, effective understanding and strategy for cooperation that might save the country from the

ghastly manifestations of Covid-19 – illness, death, personal grief, and social ruin that now loom on the nation's horizon. In effect, American citizens would rather exercise their beloved 'freedoms' – expressed as familiar gatherings in churches, bars, restaurants, sports arenas, etc. – than join together (at a distance) to avoid lethal infection. Faced with the most horrible consequences, many Americans nonetheless refuse to recognize the need for personal actions that would protect the wellbeing of their fellow citizens. As the bodies pile higher and higher each day, an emphasis upon "What's in it for me?" prevails in much of the national response to the Covid-19 crisis, a deranged mania strongly endorsed within Donald Trump's White House.

Analyses and comparisons of other social systems around the globe would no doubt reveal a wide variety of responses to the coronavirus along with highly dissimilar consequences. My comments here offer a brief exploration, one that literally 'unmasks' the plight of a nation that believed itself to be the world's most powerful and resourceful, but which failed utterly as it struggled with arrival of a tiny micro-organism. A reasonable diagnosis would locate the ultimate source of the pandemic within the condition of American civic culture itself.

## Rene von Schomberg

## Global Public Goods

China, a country with a political system at a considerable remove from the ideal of deliberative democracy and which operates against the background of a constant fear of any form of social or political instability, chose to maximize the lives of its inhabitants and took draconian measures without too many economic considerations. This is in stark contrast to the idea which circulated in the Western world, that we all accept some level of 'flexible' lock-down with a view to save primarily the lives of ageing people. While the Chinese extended their hospital capacities in record-breaking time and brought back Chinese citizens living abroad, this was hardly a consideration for most western countries.

In a sense, some western countries considered the opposite extreme: We must create herd-immunity and simply isolate the most vulnerable. The UK, Sweden and the Netherlands were betting on this option in the beginning of the pandemic, hoping that thereby they can avoid great economic loss. Most western countries, though, settled with some hesitation on the *modus operandi* of instituting precautionary measures based on the capacities of national health systems – without considering investing in, or extend these health systems. They followed a predominantly economic ra-