

The very model of a postmodern pandemic:

Why technology is the other virus changing all our lives

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BASIC THESIS:

We believe there is sufficient evidence that digital technology, more so than COVID-19, is the viral agent ultimately changing our lives. Digital technology helped us survive and is getting us out of pandemic. The pandemic provided the catalyst for the current spread of digital technology, which even may be moving us into the next wave of globalisation. The contagions are four major technology-driven shifts in western society: smart science, gig services and the platform economy, work-at-home employment, and Zoom culture.

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Over the last 18 months, COVID-19 has clearly dramatically changed our lives in the global north, but what exactly has changed and what is the cause? Is it the virus or is it something else?

A Day in the life... COVID-19 Style

"I read the news today, oh boy..."

The doorbell rings, it's Amazon. Again. It is the third delivery of the day. The first was Tesco and the second was your COVID-19 lateral flow kit – you just got your second mRNA-based vaccination, but to protect others you are tested twice a week. There's a Teams meeting in half an hour to review the latest COVID-19 simulations to assess the resilience of your company. You grab a minute to check on your kids for the fifth time, who are pretending to listen to their online school lecture, while engrossed in WhatsApp. Or perhaps it's TikTok, you lose track. Your partner, who works in healthcare, texts you a gift certificate for Deliveroo. You'll eat your delivered treat while celebrating your birthday on ZOOM with extended family and friends,

most of whom you haven't seen face-to-face in over a year.

If you don't see yourself in all aspects of this vignette, no worries. There are endless variants on this basic form across western countries in the global north. Amazon, the gig economy, working from home via Zoom or Teams or the latest advances in scientific modelling and vaccinations we see sharply defined the new constant of global life – digital technology.

During the pandemic, digital technology has been go-to, suitable-enough, instant fix. It did not shut down businesses, increase mortality rates or force people to work at home, COVID-19 did. Digital technology kept the world rotating, albeit often in diminished form. The pandemic has often shown a new set of qualities inherent in pre-existing technologies. In western countries it has worked well with conventional and new approaches to government, public health, environment, economy, and social life in general. We were pre-infected for these new functions through digital technology's complex contagion, the global social-cybernetic network.

So, which viral agent will ultimately change us more? The biological or the digital?

Despite the profound changes to daily life, the pandemic does not appear to have transformed civic or governmental responsibilities or provided the catalyst for addressing global social problems. However, it has catalysed the ever-accelerating spread of digital technology, moving us into a new phase of globalisation. This historical shift in technology is not a good or bad thing, nor is it deterministic. It simply is how the history of technology tends to work – technology and humans co-evolve through a complex interrelationship that cuts across economy, politics, culture, social institutions and so forth.

What has not changed?

A great deal has changed in the global north due to COVID-19, but if the pandemic were to be eradicated tomorrow, life in western society would strongly resemble December 2019. This is particularly true of civic and governmental institutions.

Wall Street profit and the global economy are still the number one concern. Indeed, there has been a noticeable dichotomy in political discourse between the offsetting concerns of public health versus economic survival and future growth. The idea that “the cure cannot be worse than the disease” was voiced by President Trump and numerous others.

Health inequalities still abound, particularly for the working poor, minorities, and immigrants. The environment continues to face ruin. Public health efforts are often underfunded, under debated and misused for political and ideological ends.

Social media permits the sowing of division through the spread of misinformation, mistrust, cruelty, and fear.

Most people sought to do the right thing during the initial lockdown, but successive lockdowns saw individualism, flippancy, and privilege overwhelming social commitments and our care for others. Should it really have been so necessary to reinforce the idea of care

for others, from wearing masks and social distancing to doing a small part to honour the sacrifices of healthcare providers and key workers and the lives lost to COVID-19?

Governments also failed. Politicians rebuffed scientific facts, and health experts were regularly treated with contempt or used as political props to add seriousness where it was lacking. Governments also adopted a reactive approach, to the point where the cycle was predictable. Scientists and public health experts raise alarm; the public worries and asks for guidance; government consults and waits; misinformation, conflict, anxiety and confusion emerge. Government finally responds but later rather than sooner; the working classes, minorities and poor, due to various practicalities, particularly in urban environments, were left to bend the rules to survive; the affluent would take care of themselves; morbidity and mortality rates would rise; and the cycle repeats.

Perhaps this was inevitable in western democracies, with their premium on economy, individualism, and political differences and debate. The exponential growth of viruses like COVID-19 require near total commitment for their control and eradication. Western societies did not respond in such a manner. Hence the need for digital technology in the form of vaccinations, big data, public health modelling, communication platforms, and biomedical advance. Point to a western country succeeding otherwise.

COVID-19, the very model of a postmodern pandemic

As Frank Snowden states in [Epidemics and Society](#): “[E]pidemic diseases are not random events that afflict societies capriciously and without warning. On the contrary, every society produces its own specific vulnerabilities. To study them is to understand that society’s structure, its standard of living, and its political priorities. Epidemic diseases, in that sense, have always been signifiers, and

the challenge of medical history is to decipher the meanings embedded in them' (2020, p.7).

COVID-19 represents a massive stress test on our society and shows us a postmodern, globalised world where western countries are highly dependent upon universal digital technologies to solve public health problems, including pandemic. These technologies – be it biomedical, smart machines, computational science, communication platforms, or global cyber-infrastructure – are really the virus changing all our lives, not COVID-19. This change, which may be moving us into a new phase of globalisation, is happening along four major forms of digital transformation, each involving a complex interplay between humans and a particular arena of digital technology, which the pandemic has catalysed into new emergent forms of self-organising social arrangement:

Smart science

The first is smart science -- a term that, to the best of our knowledge, we are first using. The rise of big data and concurrent advances in computational modelling – the use of high-speed computation and algorithms to search for nonobvious patterns in data and simulate various aspects of life – have changed our world irreversibly. *Smart science is the usage of smart technology, big data, and computational modelling methods.*

What has been accomplished in a span of only eighteen months is unparalleled historically, including the rollout of mass vaccinations, the exposure of public rhetoric and post-truth propaganda, the sharing of health data, the simulation of various public health scenarios, and the ability to impact the policy decisions of governments the world over.

A superb example of smart science is mRNA vaccines. Developed through the groundbreaking work of [Katalin Karikó](#) and [her global network of colleagues](#), these vaccines have high potency, capacity for rapid development and potential for low-cost manufacture and safe administration. Another is [public health simulation](#). The number and variety of scientific simulations of COVID-19 during pandemic not only provided

governments and public health officials key insights into how the virus was spreading, but they also forced many governments to respond faster than they otherwise might have, including moving into lockdown, enacting social distancing measures, and figuring out useful vaccination approaches and exit solutions.

(For more on simulations, see my six-part series -- [1](#), [2](#), [3](#), [4](#), [5](#), [6](#) -- on this blog. See also our [recent JASSS article](#) on one of the COVID-19 models we developed.)

Given the high likelihood of us facing another pandemic soon, as well as the environmental and other global health challenges we face, smart science will continue to radically improve the health of our world.

Gig services and the platform economy

The second is [gig services](#) and [platform economy](#). The platform economy uses digital platforms to link businesses and provide goods and services the world-over. Amazon.com has already posted an \$8.1 billion profit during the pandemic. Gig services involve independent contractors, online platform workers, and temporary workers who provide on-demand services such as Deliveroo and Uber. Both approaches come with serious consequences – but can we imagine life now without them?

One of the major social problems of globalisation in the late 20th century was the outsourcing of work (particularly to countries in the global south) and the exploitation of workers that often comes with it. Gig workers and the platform economy represent another form of this global social problem. Gig services is another form of global outsourcing, and the platform economy is really just a more efficient workbench by which to do it, making neither particularly new in principle, and only really new in form ([See Freidman 2014](#)).

The advantages of gig services and the platform economy for workers are high levels of flexibility, autonomy, task variety and complexity and the ability to work from home or while mobile. The disadvantages range

from health and safety issues to employer-provided benefits and workplace protections to low pay and social isolation. For companies, the primary advantage is the reduction in overhead and regulations, from office space and inventory management to worker retention and healthcare costs, as well as the ability to compete globally and survive without an established workforce, office front, or face-to-face interaction.

During the pandemic, given the dangers of proximity, the immediate enticement of gig services and the platform economy for workers and companies and we, the consumers, was too powerful. When COVID-19 hit, stores and restaurants were closed, travel was illegal. Home schooling became the norm. You put your life at risk going to or working in the office, grocery store or gas station. Those with health vulnerabilities were told to shield themselves, some for months on end, and COVID-19 swept through hospitals and care homes like wildfire. Supplies were suddenly in high demand, a rush on things took place. Toilet paper became an odd obsession. In all, the complex infrastructure of western life basically came to a screeching halt.

Nature abhors a vacuum, and the global economy could not be allowed to crash. Work life and the provision of goods and services needed to somehow continue. Same with medical care, social services, and education. Thanks to digital technology it all survived. Sort of. During the pandemic, small businesses took a major hit. Online education was variable. Store fronts and newly constructed buildings and downtowns sat empty, and it is unclear if or how they will ever reopen. Meanwhile Amazon and other major online corporations became global monsters, often putting the health and safety of employees at risk and undermining local business.

While it is unclear how exactly this shift will play out over the next several years, what is clear is that we are not going back to the way things were. The opportunities that gig services and the platform economy provide us during the pandemic are too powerful to go back in the box.

Work-at-home employment

The third is work-at-home employment (technically called [telecommuting](#)). While statistics vary across western countries, the number of people working at home in the first year of the pandemic more than doubled from most 2019 figures (1). In the UK, roughly 46% of workers did some or all their job at home during the first wave, with higher percentages in urban environments and amongst professional occupations (2 3). As the pandemic unfolded and we moved in and out of lockdown, the numbers varied and, as of summer 2021, they have yet to settle.

One of the ideas most clearly discredited during the pandemic was that home working was not practical for most businesses and negatively impacted productivity and efficiency. Most employers were forced to acknowledge that, in terms of productivity, teamwork, and communication not only did the work generally get done; it also reduced the costs of a full-time workplace. Workers could be hired anywhere in the world: eliminating commute time allowed companies to improve their environmental impact, and organisations could more easily collaborate globally through the usage of communications technologies.

For workers, it could mean long hours, more meetings, a sense of increased surveillance, increased mental health issues, stress, and a general blurring of the boundaries between personal and private life, all of which made work-at-home employment a challenge for a significant percentage of people (4). Employers likewise struggled to inculcate new employees into office culture, manage burnout and employee distractions, and cultivate community (5) While many people will want to return to office life, the percentage of employees who will continue to work at home will most likely stay far above 2019 figures. Work-at-home employment presents too many options, a shift has taken place (6).

Zoom Culture

Online life saved us, didn't it? Isolation is used as a form of torture. COVID-19 was social anguish for many of us, particularly those left isolated, heartbroken, and alone from friends and family. The elderly isolated in care homes,

the vulnerable shielding. Key workers and healthcare providers staying in hotels to protect the ones they love. It was – let’s not understate this – terrible.

ZOOM, FaceTime, Twitter, Instagram, WhatsApp, they became our lifeline. There were others, however, that found online life a different form of saving grace – the socially anxious, those who struggle with face-to-face interactions, the introverts.

However, [social media](#) has its major limitation. Teaching or speaking to a screen with everyone’s cameras off, for example, and no sound other than one’s voice heard is like being on Mars and communicating with folks back on earth, each text a challenge to decipher its emotional and social content. There is no substitute for human contact and being physically present to other human beings.

We will return to life in each other’s physical presence and travel will resume. But the ecological footprint and economic costs that online life helped to reduce, as well as the strong online bonds people were able to form through digital technology the world over, will be a strong incentive to rethink how we come back into each other’s’ lives. Hopefully for the better.

Conclusion

So, what can we conclude from this brief essay? The global problems and inequalities and inequities revealed by the COVID-19 pandemic are not new, neither are most of the solutions. Life post-covid is also shaping up to be rather like life before it, with most folks wanting to relegate the pandemic to the past and get on with things.

We would like to suggest that COVID has acted as a magnifier of existing trends and technological possibilities. The most novel thing about the pandemic is the COVID virus itself – the technologies deployed to combat it all pre-dated it. Indeed, it’s tempting to extend this to individuals and societal groups: have the kind become kinder, the angry more enraged, the dysfunctions more exposed?

We believe there is sufficient evidence, then, that digital technology, more so than COVID-19, is the viral agent that humans are using to change their lives. Digital technology helped us survive and is getting us out of pandemic. The pandemic provided the catalyst for the current spread of digital technology, which we may be engaging with sufficient to move us into the next wave of globalisation. The contagions are four major technology-driven shifts in western society: smart science, gig services and the platform economy, work-at-home employment, and Zoom culture. As with any venture in social forecasting, it is impossible to envisage the extent of change these contagions will bring about. Global warming, environmental pressures, the instability of global capitalism, the exponential growth of metropolitan areas, a potential reactionary movement against digital life, and the possibility of another all-too-soon pandemic all constitute unpredictable factors in the equation.

Change nonetheless has taken place and, at least along these avenues, we are not presently going back to the way things were.