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Academia and Medical Education in A Post-COVID-19 World

Abstract

The COVID-19 pandemic will become an important event of our lives, due to the change and disruption it will bring through both direct and indirect ways and the resultant responses and adaptations we make. These will also invariably impact education, including higher education in general and medical education in particular. In this keynote address, I will make an attempt to explore the uncertainties, venture to make predictions and propose actions in relation to higher education in Sri Lanka, in order to find ways to face the situation successfully.

Keywords

COVID-19, higher education, medical education

Introduction

I have been entrusted with the task of 'imagining' how the COVID-19 pandemic would affect our universities, especially medical education. I could try to bear on this task two different perspectives in which I am trained, namely Medicine and Sociology, and a third perspective that I have acquired through work experience, namely the academia. I will focus on the changed world that we will inhabit after the pandemic is over, hence the term 'post-covid'. My imaginings will consist of exploring uncertainties, making predictions, and suggesting responses. But first, to show how daunting a task such an imagining can be, let me start by relating to you a story.

We have all heard of Karl Marx, one of the founding-fathers of Sociology and one of the greatest social scientists of all time. But he is far more widely known for his role in socialism, or his own brand of it that we call Marxism. In the 1850s, Marx studied the enormous wealth of information on British economic history that was archived in the British Museum in London. He was attempting to do for the social sciences what Physics and Chemistry were doing at that time for the natural sciences, viz., predict social phenomena. He predicted important and interesting phenomena such as the pauperisation of the proletariat, alienation of the working class, class struggle, and communist revolution.

But all these elegant and well-reasoned speculations of a genius came to nothing – because of one scientific discovery and its resulting invention. The discovery was Michael Faraday's demonstration in the 1820s that electrical energy can be converted to motive energy by using a magnet, and the resulting invention was the electric motor.

Quite unknown to Marx, all his predictions were predicated on the unconscious assumption that the steam engine will always drive factories – an assumption that was fair enough at that time, because steam power was still fairly new and completely changing manufacturing technology and factory organisation. The electric motor was still only a physicist's work-in-progress and was yet to show its full utility to the world. In other words, Marxism in retrospect can be called a product of the age of the steam engine, and the electric motor quickly and completely displaced both. As a result, today, Marx's *Communist Manifesto,* which he co-wrote with his benefactor Friedrich Engels, is only a self-fulfilling prophecy – not a scientific theory (Marek, 1983; Marek, 1986).

So, I might ask: if the predictions of a great social scientist like Karl Marx could be brought to nothing by one scientific discovery and invention – albeit, of course, one by a great physicist – then what of my puny conjectures?

But the Indian spiritual leader Jiddu Krishnamurti has said that "One is never afraid of the unknown; one is afraid of the known coming to an end". So, I will try to imagine our future, knowing that it too would be proven wrong, but unafraid nevertheless. I shall do this in the spirit that venturing into the unknown is one of the most important societal roles of an academic.

The Biological Realm

Let me start from the biological realm, because this is part of what anthropologists call 'objective reality'. It is useless to try to deny this part of reality. If we are wise, all we should try to do is understand it and use it well. Whether or not we do that will determine whether our response will become an 'adaptation' or a 'maladaptation'. Of course, that might sound like a banality. But we should be really surprised – indeed, worried – how much we have been overlooking this objective reality and embracing instead what is called 'conceptual reality'.

A human being's progression from being completely out of danger to being dead from the virus has a step-wise sequence. Thus, people don't drop dead from COVID-19 in the middle of the road or inside phone booths, like what was shown in some social media video clips that were circulating at the very beginning of the outbreak. First, they must undergo exposure, which *may* result in infection, which then *may* produce symptomatic disease, which then *may* lead to severe disease, which then *may* result in death.[1] We don't all invariably progress along this line. For instance, the proportion of infected people who die (infection fatality rate) is probably around 0.6% if we take the world average (Verity et al, 2020).[2]

But there is one thing that can make matters much worse. Let us say that we took no precautions at all and allowed the virus to spread freely in a community. Then, it will spread very rapidly. Case numbers will increase *exponentially,* and the whole community will be affected within a short period of time. That will lead to 'saturation'

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[1] *Exposure* can be described as an event which puts a human being at risk of acquiring the virus, which depends on *the natural reservoir* of the virus and its *modes of transmission*. *Infection* can be described as the entry and establishment of the virus in the new human host, which leads to an interaction between the virus and the host's immune system. *Disease* is the occurrence of symptoms in the host. Some persons are minimally symptomatic or 'oligosymptomatic' (and might never have come in contact with the healthcare system if not for the intense contact-tracing that is currently happening with this pandemic). Others do, and some of these can have *severe disease,* requiring various treatments such as respiratory support. Both infected (asymptomatic) and diseased (symptomatic) persons can transmit the virus to others.

[2] The *case fatality rate* is the proportion of patients with symptoms or who are admitted to hospital who die. This rate has been used widely in studying infectious disease epidemics in the past. But with the COVID-19 pandemic, it has become somewhat less useful than infection fatality rate, because of the zealous detection of minimally-symptomatic patients (see Footnote 1) and the hospitalisation of asymptomatic and minimally-symptomatic patients as a measure to control spread of infection.

of its healthcare services, overwhelming them, leading to a rise in the infection fatality rate.

This is what happened in some parts of Italy, UK and USA – in Jared Diamond's language, we could call that 'a natural experiment' (Diamond and Robinson, 2010). The consequences were, of course, disastrous. Intensive care facilities became woefully inadequate, and many patients who might have been saved with intensive treatment could not be saved, and the infection fatality rate rose much higher. Frontline healthcare workers were infected and many died, leading to weakening, even collapse, of the healthcare system.[3]

So, from the biological point of view, we have three options. *Option One:* we can let the virus spread freely and have mass graves, crematoria working 24/7, and a sizeable proportion of the population dying within a few months. In such circumstances of high transmission, the virus can also mutate to become either more virulent or less virulent. And of course, if it becomes more virulent, death can be even more commonplace. Such predictions are part of what is known as Theoretical Biology (Day et al, 2020), and I won't venture into that, because my understanding of it is far too rudimentary.

Option Two: we can learn to live with the virus. This requires social distancing, personal health practices and etiquettes, occasional regional lockdowns and restarts, and so on – efforts to 'flatten the curve' (Kenyon, 2020). This modified way of life has been called 'the new normal', and it will have to last until 'herd immunity'[4] is achieved, which in the natural course of events will take several years according to current estimates, or could be achieved faster if we had an effective vaccine.

There is a less-appreciated and less-attempted *Option Three,* called 'crushing the curve'. Vietnam is an example of a country that has attempted that, and that includes very drastic measures to trace infected persons and confine them. The argument against that is not medical, but social.

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[3] Frontline healthcare workers include not only doctors, nurses and semi-skilled workers in hospital wards and clinics, but also field-workers like public health inspectors, public health midwives, medical officers of health and regional epidemiologists, all of whom clearly did a marvellous job during our first wave in Sri Lanka.

[4] Herd immunity is defined as "a level of population immunity at which disease spreading will decline or stop even after all preventive measures have been relaxed" (Britton et al, 2020). This 'level' is thought to be around 60% for COVID-19, although Britton et al (2020) consider it to be lower and around 40%.

We might be able to revert to 'the old normal' thereafter. This is probably what happened after the 1918-19 influenza pandemic or the so-called Spanish Flu. They had had to adopt virtually all the measures that we have been advised to adopt, but after a few years it has been possible to discontinue them. That is why a century later, we ourselves find these measures very strange and difficult to get used to. Then again, it is also possible that the virus may mutate into a new strain that our immune system cannot recognise, so that we all become non-immune once again – and the cycle would then have to be repeated, and the story may never end. Time alone can answer these questions.

Today we all know that 'going for herd immunity' – as the UK did – is a bad idea, indeed an unethical policy. But when it first came out there, it wasn't just fanciful thinking. It was based on elegant mathematical modelling done by the world's best and most experienced experts in the subject, with a proven track record, using real-life, reliable data from countries such as China (Anderson et al, 2020). But what these data didn't reveal was how fast the virus can spread in the community if it is allowed to spread freely or even with some amount of mitigation, and how an exponential rise in numbers can quickly saturate healthcare services even in a developed country. The reason why the early data didn't reveal this was probably because the Chinese healthcare authorities handled the epidemic at the start so well that this aspect never materialised.

There is a lesson here for all of us. It shows what over-reliance on conceptual reality can lead to – mathematical modelling is in fact an elegant example of conceptual reality, and it should be used only with close and continuous reference to empirical findings, or objective reality.

The Sociological Realm

The social challenge

The 'flattening the curve' option may be based on biological knowhow, but it has to be carried out entirely based on sociological and anthropological knowhow. This is one aspect that has not received nearly as enough attention as it requires, both locally and globally.

We must not make social changes so severely as to harm our economy, because if we did that, we will next have to face another

calamity: namely, economic collapse. That might include loss of employment, contraction of the market, collapse of businesses, decrease in state revenue and welfare expenditure, collapse of healthcare and education, mass starvation, crime waves and so on. It could happen dramatically, or it could even happen insidiously. As an example, a few weeks ago, medical statisticians in the USA calculated that in the five months from March to July this year, there had been around 225,000 *excess* deaths in the USA (an increase of 20% over previous years), of which *only two-thirds* could be attributed to COVID-19 itself, "as an underlying or contributory cause" (Woolf et al, 2020). While we might think that the USA did badly as a society, one can hardly say that its economy collapsed! So, insidious effects can happen anywhere, right under everybody's noses.

We also need input from social anthropology. For instance, we have seen how its lack in the planning can lead to stigmatisation – and even criminalisation – of 'having COVID-19'. We should remember that the people who go into quarantine, especially when they do so on their own accord, are actually sacrificing their individual freedom for the benefit of the wider society. We must understand that the virus is well-adapted to spread in crowded conditions, and the most careful of us can become infected in a moment so trivial that it doesn't even deserve to be called a mistake. The Japanese have simplified these conditions into the three C's: crowded places, confined spaces, and close contact. We are all in this together: the non-infected and the infected, the lucky ones and the unlucky ones.

The medical profession in Sri Lanka still remembers the successful social marketing campaign that was carried out to de-stigmatise leprosy in the 1990s. I am sure you all remember the Sinhala teledrama *Ella Langa Walawwa,* which was the innovative curtain-raiser of the campaign. That was planned by a combined team of medical anthropologists, dermatologists, physicians, epidemiologists, and medical administrators, with the help of experts in communication.

What this means is that we need a multi-disciplinary effort among top-level think-tanks, including not only the natural sciences but also the social sciences. We need a completely open mind, lots of empirical data, careful planning, fine-tuned strategising, resolute implementating, close monitoring, constant reflecting, and periodic reviewing. There can be no place for professional oneupmanship, political manoeuvering, or corporate sector deal-games. The governors and the governed must have complete trust in each other. It is the ultimate test of collectivism.

Let me state our social challenge in a nutshell:

a) We must do our best to keep the numbers below the saturation point of the healthcare services, and avoid an *epidemic catastrophe*.

b) But we must also do our best to keep the economy running as normally as possible, and avoid an *economic catastrophe*.

c) To avoid both catastrophes, we must carry out an unprecendented programme of *social re-design* with constant review and readjustment, and continue it for several years or until an effective vaccine becomes available.

d) And, whatever we do, *global change* too is important. We will not be able to make our decisions entirely independently of what is going on out there.

Today's global society

So, let's start with the global society. Today, this new virus is wreaking havoc across human societies throughout the world. But this is not all directly through its disease-producing effect, or 'pathogenicity'. The lives of many more millions who are not even infected are affected than those who are actually ill. This is in sharp contrast to previous, devastating pandemics such as plague, smallpox, cholera, or the so-called Spanish Flu. This time around, the greater part of the havoc is socially-engineered rather than biologically-caused.

Global interactions and interrelations seem to be disentangling. National economies are disengaging from each other. The private sector has been exposed as a spoilt child, and the public service proven to be reliable and duty-conscious.

Political structures are changing, following the rediscovery of a role for government in our lives. But this rediscovery is associated with *more* dissatisfaction with democracy than before, and a yearning for strong-arm government with isolationism and nationalism. It appears as if anti-democracy cynicism is becoming institutionalised. But even with strong-arm government, there is widespread realisation that 'the top does not know best'.

Lifestyles are changing, and consumption patterns are changing so much that our atmosphere itself is clearing up and the rise in global temperatures has recorded decelerations. The Anthropocene itself is slowing down. Technology is modifying to adjust to the new virtue called remoteness, and the new necessity called social distancing.

In short, the virus may be as invisible as the magnetism that Faraday worked with – but the two are proving to be equally powerful in their effects at the societal level.

Tomorrow's global society

Does this mean that this is the end of globalization? Or capitalism? Not really. The important point is that the virus spreads with human travel, not with goods transportation. There are of course some well-known and well-publicised findings about how the virus was found in meat, fish and packings and so on. But I think these are very unusual and can easily be rectified by disinfection. It is much more important to control the human traveller, and therefore human travel will be what is curtailed in the future. The concept of travel bubbles is, no doubt, interesting. But even within these, the degree of travel cannot reach previous levels, because frequent resurgences of the disease and recurrent isolations and lockdowns will be the norm.

So globalization as far as goods, services and finances are concerned will not be affected; these can only be affected by the social changes themselves. The globalised mode of production will not go away, although there will be some challenges to keep production at the same level as before, because of both organisational challenges and reduced demand. In contrast, international human travel will have to be reduced drastically, at least for several years. And technology will step in to solve the problems created by these travel restrictions.

What *will* go away are perhaps market fundamentalism, global free trade, McDonaldization of society, and some of the hegemonic ideas and consumerist fashions that have come to dominate our way of life. That is not because of any primary change to globalization, but because *we* have been forced to change. The *push* will be there, but the *pull* will be less. We have been forced to rediscover our neighbourhoods, our citizenship, and mundane things like our local vegetable supply – epitomised by the humble turmeric powder.

As a result, the concept of 'glocalization' – which is the concurrent existence of both global and local perspectives in our social lives – may become more important now (Robertson, 1995). In fact, the concept of glocalization is almost as old as globalization itself, and was probably first enunciated by the same expert, viz., Roland Robertson. But it is only in the last decade or so that it has been gaining ascendance, in response to the general indigenising backlash against globalization. Now, with COVID-19, its time may have finally arrived.

As a result, the idea of the global citizen will recede somewhat. We might still have a *virtual* global citizen, like someone who lives in Sri Lanka and works online in Canada or USA. But overall, the discourse on the national social contract will re-emerge now.

The Post-Covid Academia

The place of education in society

Why is all this important to us? If COVID-19 affects our world in general so profoundly, it will naturally affect education and higher education too. As an example, if many of the jobs for the university-educated had depended on the efficient functioning of mammoth macroeconomic structures such as the global financial systems, stock markets, service industries, and industrial R&D, then they might decrease now. The place of education in society – not merely its volume but also its values – is set to be renegotiated.

Internationalization of higher education

This, as well as the restrictions to travel, will pose a huge challenge also to the idea of the internationalization of higher education – a US$ 300 billion per year industry. Many prominent higher education destinations will try to keep this idea alive nevertheless, because it is their lifeblood. But they will have major problems. International higher education will now have to be much more Internet-based. For instance, recruitment drives, application-processing, selection and admission of students, classrooms, and assessments will all go more online. Students will be given a lot more freedom to pick, choose and change course units. Curricula will have to incorporate glocalization, which requires a lot of diversity. Perhaps even the concept of the academic year may go away, and students allowed to join a course not only from *wherever* they want, but even *whenever* they want in the calendar year.

It would be interesting to see how all this will affect the criteria for world university rankings. I wonder if the universities in those higher education destinations will now start saying that having international students or international faculty exchange programmes are less important for a good university!

The flip side is that local universities, such as our own state universities, will probably regain some of their respect and

prominence in the new scheme of things. Indigenous knowledge may get a chance to re-emerge.

Worsening inequity in distribution and quality of technology

One thing that we in the state universities need to really start worrying about is a worsening of inequity. To the old inequity of money has been added a new one: the inequity of technology, which is now the new arbiter of access to education.

As we struggle to access, distribute and learn how to use technology, the inequity in its distribution will have a significant effect on education. Here, I can give you a local past experience to draw from: namely, the Kannangara reforms of 1945. What Dr. Kannangara really wanted to do was introduce English literacy to intellectually-gifted children irrespective of their socio-economic status – *swabhasha* itself was a strategy to provide fairness. So English literacy was the new 'technology' back then. And of course, it didn't work, because that 'technology' remained inequitably distributed in favour of the urban, middle- and upper-class students. English literacy became known among rural poor students as the *'kaduwa'* – the sword that was used to 'decapitate' the children of the masses. This was at least partly responsible for the 1971 JVP insurrection. Today, the educated Sri Lankan is no longer bilingual.

Today, most of our students log-in using smart phones rather than laptops, so our presentation slides appear to them matchbox-sized and our text ant-sized. At home they lack the privacy and quiet surroundings needed for a lesson. My guess is that, if online technology becomes the 'new *kaduwa'* in education, we may be sowing the seeds of the next youth insurrection.

The real challenge is, however, not merely ensuring fair *distribution* of online access, but ensuring fair distribution of the *quality* of the online educational experience. As Philip Altbach and Hans de Wit (2020) warn:

> "Of course, effective online learning and teaching are possible, but it takes time and support. Making these changes quickly is a guarantee of low quality. And quality drops further when many students are lacking sufficient equipment at home, such as a poor internet connection or a lack of privacy, for example. So, let us not idealise the current shift to online!"

In short, this is a reminder that quality depends on what the student *perceives,* not how we *deliver* our lesson. But I am reminded that the

Open University of Sri Lanka is the nation's premier university for distance learning, so I am afraid that my call for quality here must sound like taking coal to Newcastle.

Changes to the nature of education

Right now we are focused on how to use technology to overcome the requirements for social distancing and travel restrictions. But in doing so, we may be missing the woods for the trees.

What about the *nature* of this new type of interaction? If education is thought of merely as the acquisition of facts, then it may be fine. But if we think of it as a transformative experience, then the quality of the interaction and what effect it produces on the student's personality should be considered more important than our current concerns.

By distancing the student from the teacher, the novice from the expert, or the apprentice from the mentor, what will happen to education? If the teacher – living, breathing, responding and innovating in front of the student – is replaced by a digital interface, recorded session or video clip, is it still education? Is the purpose of education certification, or is it illumination?

That is not all. These technologies put a distance between not only student and teacher, but also between fellow-students. What effect will that have? How important is interacting with others, for one's personal growth? How important are inter-personal skills, for one's future work? What effect will that have on the future professional, who must not only give a technical solution to a client's problem, but also understand the client as a whole person with a unique psychological make-up and social background? What will it teach about inter-personal communication, when we know that only one-third of communication is verbal and the rest non-verbal?

What effect will such learning in isolation have on a professional's understanding of the diversity, inequity and the very misfortunes in society, and on developing a social conscience? And without such a social conscience, what use is education, or even certification?

In short, is remoteness really a virtue? Should we try to *adopt* remoteness or should we try to *avoid* it?

Understanding the real challenge

As you very well know as seasoned academics, these aspects of education have always been under-rated and undermined, partly

because the New Managerialism that has entered the academia has eliminated 'all things unmeasurable', and partly because education has been detached from societal goals and realigned with a productivity that was narrowly defined along World Bank Economics officialese – and of course, these two developments were not entirely independent. Are these trends set to worsen, when our future intellectuals become socially-immature data-crunchers rather than emotionally-intelligent, socially-competent adults?

My plea to you is this. Let us not assume that our real challenge is distributing technology and using it well – as important as these are. We don't need to feel ashamed or frightened to raise these issues. Let me quote at some length our Indian counterparts, in the hope of infusing some courage to our convictions (O.P. Jindal Global University and Association of Indian Universities, 2020: 17):

> "Not having students face-to-face within the confinement of a physical classroom may hinder the interaction between students and teachers. Even within the online format, students are usually required to keep the cameras off due to bandwidth constraints, making it challenging for the faculty to understand the receptiveness of students.
>
> Also, in the absence of the peer-to-peer interactions that are common on physical campus, and lack of extracurricular activities, students will not have the required social and emotional development opportunities. These are essential for developing students with well-rounded personalities, helping them build an effective social network, and supporting them in understanding the values of collaboration, team-work, diversity, practical implementation of skills learned, and interpersonal skills."

But let us instead see as our real challenge, the necessity to understand the new situation from a societal and human angle: as an alteration to social interactions and human perceptions rather than a need to adopt new technological tools and digital skills.

Post-Covid Medical Education

Changes to medicine in general

With regard to medical education, let me first examine the changes we may see in medicine itself.

People often say that we will now rediscover public health and the state's role in it, now that even affluent countries with advanced healthcare systems had had to learn a bitter lesson. I am not quite so sure. Of course, I do accept and have always accepted that public health is important. But the reason why some countries had championed it in the past is not exactly because of enlightened policy.

Some countries, including colonial and post-colonial Ceylon, did so because of democratisation. But the democratisation of the 1930s and 1940s was one that saw *rational* policies being applied *throughout the island*. From the 1950s onwards, it has been gradually replaced by majoritarianism, regionalism, identity politics, and kleptocracy. If democracy takes a back seat even more in the post-covid world, then public health has more to fear than rejoice.

Other countries, such as the former colonial empires, invested in public health in the nineteenth and twentieth centuries because they needed a large healthy workforce for their industrial factories, armies, and merchant navies – and today, industrialised countries are replacing humanpower by machinery, factory workers by robotics, and armies by missiles and drones.

So I will not hold my breath or assume that public health is going to be back with a vengeance. It might instead give rise to – indeed, accelerate – a new, techno-savvy 'public health industry'.

In fact, in industrialised countries, even knowledge workers may begin to be replaced by artificial intelligence, so I am not sure if even universities will be needed to the same extent that encouraged their massification in the middle of the twentieth century.

Another important change that I foresee in medicine is in its dominant biomedical ethics paradigm. Since the 1970s, biomedical ethics had been based on the so-called four Beauchamp-Childress principles of individual autonomy, beneficence, non-maleficence, and justice, with individual autonomy holding primacy over the others. But the healthcare catastrophes in places like Italy and UK, where facilities became saturated and death became the all-too-prevalent reality, individual autonomy became sidelined in favour of the greater good of the community. The medical profession there was forced to ask some very difficult questions, and it is possible that this might have important repercussions on the dominant, autonomy-based bioethics paradigm (Jobges et al, 2020).

Changes to medical education

Now let me move from medicine to medical education. One manner in which medical education will have to change is in preparing for future pandemics, or at least infectious disease outbreaks. Hereafter, medical and healthcare curricula will certainly have to give pride of place to infectious diseases, outbreak management, skills in using personal protective equipment and so on.

The experience with the pandemic has given rise to a resurgence of concepts such as beneficence, altruism and indeed sacrifice. Up until now, we have valorised healthcare workers like Dr Carlo Urbani, who brilliantly identified the 2003 SARS outbreak at a very early stage and saved the world, but himself contracted the virus and died of it; and the many volunteering doctors and nurses who had silently gone to Africa to look after the doomed villagers caught up in Ebola outbreaks. But in the future, these may be more integral parts of our job description and will be prevalent in all neighbourhoods – rather than being examples of exceptional valour seen in exotic, far-away locations. Now, would-be healthcare professionals know that they must be prepared to work in pandemic situations with a significant amount of risk to themselves and their families.

But when exceptional circumstances become normal circumstances in the near future, can we expect exemplary behaviour also to become the norm? Or, will people find an easy way out? Will a new stratification of healthcare workers come into existence, where power differentials determine who has a greater exposure to risks? Will tomorrow's frontline healthcare workers who take the brunt of the risk be like *firefighters* (who go in with valour, superior training, and advanced technology) or like *miners* (who are only looking for an escape from poverty)?

But as medical teachers, our real worry is what the absence or paucity of in-person teaching would do to medical training, especially clinical training. Already this had been compromised by rising student-numbers. Social distancing requirements could make matters even worse.

The New Face of an Old Challenge

An old challenge

The way that I see it, to the academia, all this is not so much a calamity as it is a challenge. In fact, it is more a *reappearance* of an *old* challenge that we had been comfortably and wrongly ignoring until now. Let me explain what this ignored, old challenge is.

In the last several decades, globalization has subdued concepts such as subsistence existence, self-sufficiency, local knowhow, and the technological solutions that were called intermediate or appropriate technology. Political economic pluralism was steamrolled by the Washington Consensus, technological pluralisms by multi-national corporations, and cultural pluralisms by the McDonaldization of society. In the post-Soviet world, political organisation became unipolar, and capitalism became the only valid economic framework; indeed, capitalism was replaced by crony capitalism and public engagement replaced by the triple helix. Our duties towards each other were replaced by individual rights, and individual human rights became so much championed that even lawyers forgot about community rights. Society championed credit cards and narcissism. We replaced public transport by the private vehicle, public schools by private tuition, public health by health consumerism, health promotion by biological enhancement, rain forests by ecotourist destinations, and community life by egoism. To paraphrase Jean Baudrillard, the only beauty in our lives had become the beauty of cosmetic surgery, designer fashion, post-modern architecture, and urban planning; and the only truth was what opinion polls manufactured.

Marcia Angell (2008) has written and spoken widely about the USA healthcare system, and how it has taken a wrong turn. I often think: how can top medical academics in the USA become the most frequent winners of Nobel Prizes and reach the highest number of publications, citations and patents; and their healthcare system come to possess the world's most advanced healthcare technology; and their country become the highest per capita spenders on healthcare in the world – *while* one-third of their compatriots had no health insurance and therefore could not access any healthcare; and another one-third was under-insured and therefore were undertreated? Whose benefit, apart from their own, were they working so hard for?

Indeed, both as a country and as a world, we could even have been better prepared to face this pandemic itself, but we hadn't. The World Health Organization (1999) first warned us about a pandemic like COVID-19 and advised all member-states to have a pandemic preparedness plan, way back in 1999. But we had other priorities, like privatising healthcare, including even public health infrastructure. Not only that, we might even have been able to prevent the pandemic itself. Over 75% of new human pathogens come from our interactions with animals and our environment, and studying these interactions helps to prevent such disease emergence. The world's top scientists asked humanity to collaborate across the human, animal, plant, and environmental divides to approach our healthcare problems, including emerging infectious diseases, in unison, through One Health (Zinsstag et al, 2011). But we had other priorities, like cracking the human genome open, to promote new biotechnology industries. The scientists moved even further on, from One Health to even more integrated approaches, such as planetary health (Ruegg et al, 2019). But we went on instead to focus on even more particularist approaches, like personalised medicine, health consumerism and biological enhancement, because that was where the stock market beckoned us.

While all this change was taking place in society through these several decades, universities were conspicuous by their silence, if not acquiescence. One of the most telling statements about this was recently made by Australian academic Angus Kennedy (2017) (emphases in the original):

> "Rather than being *relevant* to society, instead the role of the university is a model of how society *should be*. Its foundation showed that society believed there were higher things, things more important than the material and mundane, and that they were the rightful objects of study by those who had a higher calling, a more noble profession than soldiery, or buying and selling in the marketplace."

Kennedy's sentiment is, of course, not new. Fifty years previously, Theodore Roszak in his book *The Dissenting Academy* asked his fellow-US academics in the Humanities to "…cease functioning as the handmaidens of whatever political, military, paramilitary or economic elites happens to be financing" and "…to become an independent source of knowledge, value and criticism".

And before all of them was Socrates:

> "To which sort of treatment of our city do you urge me? Is it to combat the Athenians until they become as virtuous as possible, prescribing for them like a physician; or is it to be their servant and cater to their pleasure?"

As Socrates, Roszak and others had tried to point out, for intellectuals it is not enough to be expert critics: they must also be radical dissenters when the occasion demands. But the academia had ignored that challenge. George Orwell put it pithily, in his dystopian novel *Nineteen Eighty-Four:* "Orthodoxy is unconsciousness."

A Pause to Think

This was the path we were taking. What the pandemic did was slow us down to let us catch our breath, to give us some thinking space. We were momentarily stopped in our tracks and made to go back to the drawing boards, as it were. I was reminded of the heroes of my youth, like the environmentalist Rachel Carson, the economist E.F. Schumacher, the iconoclastic social reformer Ivan Illich, and our own educationist E.W. Adikaram. I felt the need to dig out their books and start re-reading them. I think that with COVID-19, the universities were given another chance. Indeed, Paddy Cosgrave, an influential European technology entrepreneur, even gently pointed out the place for some considerable optimism in this opportunity. He said:

> "In 1665, Cambridge University closed because of the plague. Isaac Newton decided to work from home. He discovered calculus and the laws of motion. Just saying."

So, ladies and gentlemen, rather than worrying about the unknown, I think we can take a page out of Krishmamurti and utilise what we already know to face the current uncertainty. We can make use of the accidental activation of the Pause button in our lives, and take stock of the direction we were taking. There is no need to be afraid. It is a good time to remind ourselves that human beings are social animals.

As Barack Obama said, "The only thing that is the end of the world is the end of the world".

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