



Emancipating the Mind in the New Era

Bulletin of the Coalition for Peace & Ethics

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Coronavirus and International Affairs in the New Era of Globalization

*Proceedings and Conference Essays of the Conference-Roundtable held virtually 17 April 2020
sponsored by the Coalition for Peace & Ethics, the Research Network for Law and International
Affairs, Penn State Law and the Penn State School of International Affairs*

Coronavirus and International Affairs

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A. Introduction

Introduction: Coronavirus and International Affairs in the New Era of Globalization

CPE Volume 15(2) (Larry Catá Backer and Coalition for Peace & Ethics Special Issue editors)

Before 2019, the global health community had grown accustomed to the ever growing family of coronaviruses (CoV). Coronaviruses are members of a very large family of organisms which are responsible for diseases as endemic as the common cold, as well as for more acute variations that caused some fright in the first two decades of the 21st century. One was SARS-CoV (severe acute respiratory syndrome) which was first reported in Asia in 2003 and spread elsewhere before it was contained that year.¹ The other was MERS-CoV (Middle East Respiratory Syndrome), first reported in Saudi Arabia in 2012 and spread elsewhere, including the United States, and resulting in a death rate of 3 or 4 out of every ten patients.²

The variation of coronavirus identified as severe acute respiratory syndrome 2 (SARS-CoV-2) causes a disease now commonly called coronavirus disease 2019 or as it has become commonly known, as COVID-19.³ Through 4 December 2020, the World Health Organization (WHO) has reported over 64 million confirmed cases of COVID-19 and almost 1.5 million

¹ U.S. Centers for Disease Control, "Severe Acute Respiratory Syndrome (SARS)," (last reviewed 6 Dec. 2017) available [<https://www.cdc.gov/sars/index.html>]. There have been no known cases of SARS since 2004 according to this website.

² U.S. Centers for Disease Control, About MERS (last updated 2 Aug. 2019) available [<https://www.cdc.gov/coronavirus/mers/about/index.html>] . Later research suggested that MERS first appeared in Jordan in April 2012 and that the last large outbreak occurred in Korea in 2015. Ibid.

³ Mayo Clinic, "Coronavirus Disease 2019 (COVID-19)—Symptoms and Causes," CON-20479162 (24 Nov. 2020) [<https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>].

deaths as reported to it.⁴ The numbers are probably far larger. And those numbers are likely even greater when one adds the deaths and illness that might have resulted from or been triggered by exposure to COVID-19.

COVID-19 was first reported in the People's Republic of China though its origins remain disputed. It was declared a pandemic by WHO on 11 March 2020.⁵ The origins of COVID-19 and issues of transparency and reporting responsibility among WHO members erupted almost at the same time as the pandemic itself.⁶ It is related to issues that range from accusations of reckless refusals to warn the international community, to capture of the WHO by a leading state actor, and to the question of reckless conduct that increased the mortality and infection rates in states.⁷ As early as March 2020 COVID-19

⁴ World Health Organization, "WHO Coronavirus Disease (COVID-19) Dashboard," (updated through 4 December 2020). Available [<https://covid19.who.int/>].

⁵ Jamie Ducharme, "World Health Organization Declares COVID-19 a 'Pandemic.' Here's What That Means," *Time* (11 March 2020) [<https://time.com/5791661/who-coronavirus-pandemic-declaration/>].

⁶ See, e.g., Jonathan Latham, and Allison Wilson, "A Proposed Origin for SARS-CoV-2 and the COVID-19 Pandemic," *Independent Science News* (15 July 2020) Available [<https://www.independentsciencenews.org/commentaries/a-proposed-origin-for-sars-cov-2-and-the-covid-19-pandemic/>]; discussed in Shin Jie Yong, "The Latest Theory that may Answer the Origin of COVID-19," *Medium* (14 August 2020).

⁷ At its meeting in March 2020 the WHO Assembly adopted a proposal which had been led by Australia and the European Union, to "review experience gained and lessons learned from the WHO-coordinated international health response to Covid-19," Rob Picheta, "WHO Approves Call for Inquiry into Global Coronavirus Response," *CNN* (19 May 2020) available [<https://www.cnn.com/2020/05/19/china/wha-pandemic-inquiry-resolution-vote-intl/index.html>] ("The resolution did not single out any individual country, but a number of nations -- including the US -- have accused Beijing of withholding information about the virus, which was first detected in the central Chinese city of Wuhan in late 2019." *Ibid.*). "But the international effort to uncover the virus' origins is again surrounded by questions over China's transparency and the World Health Organization's role in marshaling global cooperation." Carmen Paun, "The Hunt for COVID's Origins," *Politico* (3 December 2020). Available [<https://www.politico.com/newsletters/global-pulse/2020/12/03/the-hunt-for-covids-origins-491037>]; "How WHO is still letting China block a real investigation of how COVID-19 started," *New York Post* (8 Nov. 2020) available [<https://nypost.com/2020/11/08/who-is-letting-china-block-an-investigation-of-how-covid-19-started/>] ("The New York Times summed up its blockbuster report, which covered internal documents and interviews with more than 50 officials and scientists, this way: "As it

served as a focal point of US-Chinese tensions and competition for power, and the authority to lead global anti-pandemic efforts.⁸ That controversy continues, spilling over from the medical field that of international trade and suggests the convergence of both during times of pandemic.⁹

Early in the life of the COVID-19 pandemic, and even before WHO's eventual formal declaration of what in hindsight was obvious, the Coalition for Peace & Ethics attempted to organize what was then conceived as a workshop. The motivation was an effort to explore, even at the early stages of what would officially become a pandemic, the convergence of a number of significant events around the COVID-19 phenomenon. These included the politics of COVID-19 origin stories and their effects on and ramifications for international relations. But we were interested as well in a number of other trajectories that were manifesting themselves almost from the start of the international consciousness that this disease was something potentially far more deadly than SARS or MERS. These included the development and deployment of big data and data driven analytics and modelling to both manage populations and develop policy. It also included the contests between the challenges of disease mortality mitigation and the effects of those measures on national (and eventually the global) economy. The COVID-19 related tragedies were also a compelling motivator, from the plight of cruise ships of infected passengers and crews unable to dock anywhere, to the tragedy

praised Beijing, the World Health Organization concealed concessions to China and may have sacrificed the best chance to unravel the virus's origins."").

⁸ It was reported that "A war of words between the United States and China over coronavirus intensified on Monday after the Chinese embassy in France suggested the outbreak actually started in the US. President Donald Trump and other American officials have repeatedly described coronavirus as the "Chinese virus", incensing Beijing and sparking tit-for-tat accusations on the origin of the contagion." "US-China Spar Over Coronavirus Again," Aljazeera (23 March 2020) Available [<https://www.aljazeera.com/news/2020/3/23/us-china-spar-over-coronavirus-origin>].

⁹ Associated Press, "Do China's Claims of Coronavirus on Frozen Foods Stack Up?," Los Angeles Times (25 Nov. 2020). Available [<https://www.latimes.com/world-nation/story/2020-11-25/china-claim-coronavirus-frozen-foods>] ["China has stirred controversy with claims that it has detected the coronavirus on packages of imported frozen food, including from Russia and Norway. Frozen shrimp imported from an Ecuadorean company was banned for one week Tuesday in a continuing series of such temporary bans." Ibid.).

of high mortality rates among the vulnerable, especially the aged and those confined to long term care facilities.¹⁰

Most importantly members of the Coalition for Peace & Ethics noted that by February 2020 consequences of disease hysteria and its effects on the way human communities interacted with each other were becoming increasingly evident. In the United States, a focus on extent of the challenge of COVID-19 for China, and the measures taken by Chinese authorities, as well as widely circulated news coverage of speculation about the origins of the disease within the food markets or the infectious laboratories in the first great disease epicenter—Wuhan, China¹¹—appeared to give rise to anti-Asian sentiment. These reactions were expressed early on in actions that could be characterized as falling within a spectrum from the ludicrous¹² to the racist.¹³

It was our original idea to bring together scholars, students, lawyers, and others from Europe, Latin America, Asia, Africa, and North America for a roundtable discussion of these early trends and what they augured for the approaches to meeting the challenges of the disease. But events overtook us. Penn State University, following many states and other institutions, closed in early March in an effort to slow the progress of the disease and to reduce the strain on medical facilities.

¹⁰ For example, as a result of policy decisions by the administration in New York State, by July 2020 it had become evident that “New York is now home to one of the highest nursing home death tolls in the nation, with more than 6,400 deaths in homes and long-term care facilities tied to the virus.” Vincent Barone, “Gov. Cuomo sent 6,300 COVID-19 patients to nursing homes during pandemic,” *New York Post* (8 July 2020); available [<https://nypost.com/2020/07/08/cuomo-sent-6300-covid-19-patients-to-nursing-homes-amid-pandemic/>].

¹¹ Cf., Sam McNeil, “China’s Virus Pandemic Epicenter Wuhan Ends 76-Day Lockdown,” PBS (7 April 2020); available [<https://www.pbs.org/newshour/world/chinas-virus-pandemic-epicenter-wuhan-ends-76-day-lockdown>].

¹² See, e.g., Ariel Zilber, “Coronavirus fear sparks boycott of Corona BEER as survey finds 38% of beer-drinking Americans say they now won’t drink the lager,” *Daily Mail* (28 February 2020); available [<https://www.dailymail.co.uk/news/article-8056489/Coronavirus-fear-sparks-boycott-Corona-BEER-survey-finds-38-say-wont-drink-lager.html>].

¹³ See, e.g., Geoffrey Mak, “Being Asian-American in the Time of COVID-19,” *The Guardian* (8 May 2020); available [<https://www.theguardian.com/commentisfree/2020/may/08/asian-american-coronavirus-geoffrey-mak>].

The original Roundtable was then postponed to 17 April 2020.¹⁴ And, in what would become the standard method of communication and meeting during the course of the pandemic (though we did not know that at the time), the Roundtable format was changed and it became a virtual event over an extended period and conducted in multiple formats.

At the same time, the possibility of pursuing an online alternative militated against cancellation and convinced us that we would do more good postponing and re-shaping rather than canceling the event. Indeed, that re-scheduling and transformation if the event could itself provide additional topics for discussion about the world of academic discourse and knowledge production within and among universities in the post-COVID-19 world. Thus, the pandemic itself suggests both the importance of the topic, and the ways that it is changing the way that organized human activity is being transformed. In that context working hard to change the format of the event to suit the times might itself serve as one of the more important elements of the Conference Roundtable.¹⁵

In addition to the capstone event, the virtual Conference-Roundtable—held 17 April 2020¹⁶—the organizers also sponsored a number of interviews with key collaborators. These twelve interviews were then circulated through the Coalition for Peace & Ethics' YouTube Channel.¹⁷ These interviews permitted

¹⁴ See, "POSTPONED to 17 APRIL 2020--Coronavirus and International Affairs Roundtable," Law at the End of the Day (19 March 2020); available [https://lbackerblog.blogspot.com/2020/03/postponed-to-17-april-2020-coronavirus.html].

¹⁵ Ibid.

¹⁶ See Conference-Roundtable Website; available [https://www.thecpe.org/projects/education-projects/roundtable-coronavirus-and-international-affairs/].

¹⁷ See, "Video Interviews: COVID-19 and International Affairs 2020," Coalition for Peace & Ethics YouTube Channel; Available [https://www.youtube.com/playlist?list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9]. The Description noted:

The Conference/Roundtable brings together academics, practitioners, and civil society actors from China, the United States, Spain, Germany, Israel, and Italy, each bringing a unique national and regional perspective to the discussion of COVID-19 in its transnational effects. These effects are simultaneously local (manifesting in specifically contextual

individuals to speak at length, in a conversation format, about the COVID-19 related issues they had been following. It also permitted us to broaden our range of engagement, moving from a centering of discussion on Europe and North America, to China, the Caribbean and Latin America, the Middle East, Eastern Europe, and Ukraine, and Africa.

Larry Catá Backer's Interview examined the rationale for focusing in international rather than national approaches to the COVID-19 pandemic, and on the semiotics of the virus in terms of imposing meaning through nationality, through morality, and through responsibility.¹⁸ Yuri González Hernández's interview focused on COVID-19 in Cuba and the Caribbean, on the role of Cuban medical diplomacy abroad, and on the economic repercussions respecting pharma and the tourist sector.¹⁹ Alice Hong's interview examined COVID-19 from the perspective of a foreign student at a US university; reflections on the way that the great drivers of international relations produce personal and individual effects).²⁰ Shan Goa's interview considered life under COVID-19 across the US-China divide. Dr. Gao grew up in Wuhan where his parents still live and work and he now works in the midwestern U.S.²¹ Keren Wang provides a superb interview that started with a wide ranging discussion of the difference between the US and China in terms of their response to the pandemic, and then considered how that response and this pandemic has shaped its own discourse in both countries, contrasting the way that discussion is constructed by officials, the media, and among common

ways) and global, manifesting in tendencies to convergence in some respects of principles, practices, and outlook. Participants and Contributors here engage with their subject in a series of short video interviews. We hope you enjoy them!

¹⁸ Interview Larry Catá Backer (11 April 2020), CPE YouTube Channel; available

[https://www.youtube.com/watch?v=9jgYvKzy_qg&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=1].

¹⁹ Interview Yuri González Hernández (11 April 2020); CPE YouTube Channel; available

[https://www.youtube.com/watch?v=9jgYvKzy_qg&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=1].

²⁰ Interview Alice Hong (12 April 2020); CPE YouTube Channel; available [https://www.youtube.com/watch?v=GuYj251Ujyo&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=4].

²¹ Interview Shan Goa (13 April 2020), CPE YouTube Channel; available [https://www.youtube.com/watch?v=4KWypsBCBJw&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=5].

people.²² Jonathan Kiwana's interview moved our gaze from Asia to Africa. A lawyer and constitutional scholar in Uganda, he spoke to the way that Uganda and neighboring states confronted COVID-19 and the pandemic, the role of the African Union and IFIs, as well as the role of Multinational Enterprises in meeting the COVID-19 challenge.²³ Pini Mirtetski's interview focused on the state, technology and the response of Russia, Ukraine, Israel, Turkmenistan, and Belarus in meeting the challenges of the COVID-19 pandemic. He first considers the current responses among these states from a comparative perspectives, and then considers the role of technology in each nation's response.²⁴ Nicolas Scholz's interview centered on the situation in Germany, a federal Republic with its own brand of center-periphery issues that are different from that between the US States and federal government. He spoke as well to COVID-19 from a European historical perspective, situating it within a century of shocks that adds perspective.²⁵ Lastly, Bethany Salgado's interview focused on issues of the challenges of COVID-19 for business with particular focus on the consumer products industry. She also spoke about business and human rights in two respects: the first was relating to corporate responsibility for the integrity and welfare of stakeholders in its supply chain; the second touched on the responsibility of enterprises for worker protection in the form of PPE and obligations to sanitize workplaces.²⁶

In addition, to the Conference-Roundtable presentations and the video interviews, the organizers also sought to distribute short interventions that touched on emerging issues

²² Interview Keren Wang []; CPE YouTube Channel; available [https://www.youtube.com/watch?v=5uoFAPF_LKs&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=6].

²³ Interview Jonathan Kiwana Interview (14 April 2020); CPE YouTube Channel; available [https://www.youtube.com/watch?v=88nkCaSZLrk&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=7].

²⁴ Interview Pini Mirtetski (16 April 2020); CPE YouTube Channel; available [https://www.youtube.com/watch?v=M8RABBqDN-0&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=8].

²⁵ Interview Nicholas Scholz (16 April 2020); CPE YouTube Channel; available [https://www.youtube.com/watch?v=SHWntp8CflQ&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=9].

²⁶ Interview Bethany Salgado (16 April 2020); CPE YouTube Channel; available [https://www.youtube.com/watch?v=HgW1kyecjfo&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=10].

in real time. These were posted to the blogsite “Law at the End of the Day.” Lastly, a number of individuals, some participating in the events of March and April 2020 and some participating thereafter, contributed longer essays and think pieces to the project.

This volume 15(2) of *Emancipating the Mind* brings together these distinctive strands of intervention. Part B serves loosely as a set of Conference Roundtable proceedings. It includes the Conference-Roundtable description and its Concept Note, the Conference-Roundtable Program, as well as a number of the short interventions and interviews, some originally published to “Law at the End of the Day”²⁷ and revised for publication in this volume. Here the focus was on the margins—not the great titanic battles of the great powers and their leaders, but rather focusing on those who tend to bear the consequences of these much more influential struggles. These serve as contemporary witness to the struggles of individual and less potent powers, in the shadow of the decisions made by the great states and international actors in confronting pandemic.

Larry Catá Backer starts Part B with a short intervention introducing the concept of COVID-19 as a social force accelerator. The rest of the interventions take a more granular look at COVID-19 from the edges of the personal, the social, and the political. Shan GAO and Alice Hong speak to the highly personal experiences of Chinese students in the United States with family in China. Yuri González Hernández speaks to the pandemic from the global margins—the Caribbean and Latin America. Nicholas Scholz speaks to the way that COVID-19 has itself infected power; the virus has as powerful an abstract character as it does a physical form, each contributing to damage to individual and societal bodies. Bethany Salgado then speaks to convergence of consequences around pandemic. Like an army, a society is no stronger than its logistics in meeting challenges.

Part C then includes a number of longer essays and articles on COVID-19 and its connection to the broader issues of governance, of international relations, and of its effects on the stability of national orders and the international (public and private) system. Birgit Spiesshofer starts with an examination

²⁷ See Law at the End of the Day; “COVID-19”, available [<https://lcbackerblog.blogspot.com/search/label/COVID-19>].

of initial steps undertaken by the European Union. She takes a sardonic look at the challenges of convergence for the European Union in the shadow of COVID-19. David Westbrook turns his gaze from the business of constitutional international orders to the enterprise of education. Like political organs, the great educational factories have succumbed to their own logics in the face of COVID-19. And those logics may not align with the ideal behind which these bureaucracies have been changing. Your González Hernández then takes a deep dive into the realities of COVID-19 in Cuba. Cuba presents an interesting hybrid case as a state exhibiting the characteristics of both a highly developed and a developing state in ways that complicates pandemic responses.

Maria Chiara Marullo and Francisco Javier Zamora Cabot then turn attention to one of the more consequential global consequences of pandemic and the responses to the challenges it presents—its effects on structures, notions and practices of human rights. They remind us that shifting perspective can make a great difference in the way that responses are crafted—is COVID-19 principally a medical crisis, a political crisis, an economic crisis, or a human rights crisis? Larry Catá Backer then speaks to the metamorphosis of COVID-19. He focuses on COVID-19 as the nexus point for transformations within origin narratives (where did the pandemic originate); on morality (who is sacrificed and who bears the burdens imposed by others); and on the transformation of the relationship between those who manage and those who are managed. Lastly Jordan Alkaabi does a deep dive in the realm of COVID-19 responses and technology. He examines the way that technology has transformed the character of responses and the transformative effects of those technologies on social and political spaces in South Korea, Taiwan, Canada, New Zealand, and Australia.

We are grateful to all of the participants both in the live events, and who contributed to this volume. We believe that these essays and intervention, singularly and as a body of work, provides an important and sometimes overlooked set of perspectives about plague and its consequences for globalization, the international order, social organization, and the mechanics of managing large populations threatened by a disease whose very properties continued to elude for so long.

We are also grateful to the Conference-Roundtable sponsors: these included the Coalition for Peace & Ethics, the

Research Forum for Law and International Affairs, Penn State School of International Affairs, and Penn State Law. The Conference-Roundtable would not have been possible without their contributions, and we are grateful as well for their flexibility in responding to what turned out to be a very fluid situation.

We hope our readers find the proceedings and essays of some use. We also hope that readers who are interested will also consider listening to the interviews. In many ways they provide a window onto the realities of the pandemic at a point when global actors were only coming to realize its scope and the challenges the pandemic posed.

Larry Catá Backer &
CPE Members
CPE 15(2) Editors

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B. Proceedings

Conference-Roundtable—Coronavirus and International Affairs: Event Summary Description and Concept Note

Coalition for Peace & Ethics
Prepared by
Larry Catá Backer

This Section of the Proceedings is divided into two sections. Section 1 includes a short Conference-Roundtable description as it was prepared immediately before the event. Section 2 includes the more detailed Concept Note. Both were prepared by Larry Catá Backer for the Coalition for Peace & Ethics.

Description and Concept Note

1. Conference-Roundtable Description

The emergence of a new strain of coronavirus, COVID-19, one of a more lethal strain of a class of virus that cause disease in humans, has had a profound effect on virtually all aspects of human activity. As of 2 April 2020, worldwide 900,306 cases have been confirmed 45,693 COVID-19 related deaths have been reported in 206 countries by the World Health Organization.¹ But even those numbers are contested. For the same period through 28 February 2020, Worldometer reported 51,703 deaths of 1,007,103 confirmed cases.² The pandemic appears in every corner of the world. While the medical and health implications of COVID-19 are profound and tragic, the effects of the disease on governance, law, and international affairs will likely be even more significant and long lasting. As states, institutions, and individuals respond to the challenges, always contextually unique, all of the structures of the contemporary world have come under stress, and principally the structures and normative frameworks of globalization. These include everything from the free movement of investment, capital, and goods, to migration. The international ramifications have also stressed the constitutional orders of many states as the needs of responses sometimes might threaten domestic (and international) constitutional orders. At the same time, COVID-19 has opened a path to a revolution in the use of data

¹ The original reference has since been replaced by the WHO COVID dashboard. See World Health Organization, "WHO Coronavirus Disease (COVID-19) Dashboard," (updated through 4 December 2020). Available [<https://covid19.who.int/>]. Between the time the description was written and the beginning of December 2020, the number of infections and deaths had skyrocketed to almost 65 million cases and over 1.5 million deaths. See, *Ibid*.

² The numbers continue to be contested but the differences appear to be at the margins by the end of 2020. See Worldometer, "Coronavirus Death Toll" (updated 4 December 220); available [<https://www.worldometers.info/coronavirus/coronavirus-death-toll/>]. The site notes that one of the problems of data analysis was a change in diagnosis classification after 12 February 2020. See, Worldometer, "How to interpret the 15,152 (+600%) surge in new cases of February 12," available [<https://www.worldometers.info/coronavirus/how-to-interpret-feb-12-case-surge/>].

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driven governance, big data, and artificial intelligence in the management of society and collective responses to pandemic.³

In this dynamic context, the COVID-19 epidemic has brought out both the best and worst of individuals and human societies. Those best and worst impulses may eventually embed themselves into the patterns of behavior and expressed as law, policy or cultural bias. These impulses are brought to climax as borders are sealed, transport is severely constrained, and the constant focus on pandemic creates the sort of stress on individuals (jobs, mobility, sickness and the like) that produces suicide, madness, and other psychological difficulties. This Conference/ Roundtable brings together experts in law and international affairs from Asia, Europe, North America and the Caribbean to discuss the collateral effects of COVID-19 in those terms. More specifically participants will speak to (1) misperceptions about the situation in China; (2) the use of coronavirus as a veil for racism; (3) national responses to perceptions of crisis; (4) effects of coronavirus on the movement of people, investment and capital across borders; (5) consequences of coronavirus for the state of international affairs and legal structures (e.g., quarantines, education, supply and production chains, human rights versus collective responsibilities, etc.); (6) repercussions for big global trade projects, with specific reference to the Belt and Road and America First initiatives; and (7) effects on education and other service industries. Inputs are welcome and will be posted to the conference website; participants will respond to questions delivered before the roundtable date. Registration for the Conference/Roundtable is required but there is no fee.

³ See, Larry Catá Backer, "Automated Law and COVID-19: Data Driven Measures with National Characteristics in China and Israel and the Future of the Law-Governance Complex; Data Driven Management of COVID-19: The Case of Taiwan," *Law at the End of the Day* (24 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html].

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The emergence of a new strain of coronavirus, COVID-19, one of a more lethal strain of a class of virus that cause disease in humans, has had a profound effect on virtually all aspects of human activity. A February 2020 Report published in *JAMA* reported that of the 72,314 cases of COVID-19 studied (as of 11 February 2020), about 81% of the cases were classified as mild, but that mortality rates varied from about 15% for patients over 80 years of age, 8% for patients 70-79 years of age, and 49% among the critically ill. The average mortality for all people in the study was about 2.3%.⁵ Of these, male mortality (2.8%) exceeded female mortality (1.7%).⁶ As of 28 February 2020, 2,868 deaths have been reported of 83,905 confirmed cases in 57 countries.⁷ By 27 February, the World Health Organization announced that the COVID-19 outbreak “has reached a ‘decisive point’ and has ‘pandemic potential.’”⁸

⁴ The Concept Note was produced during the first several months of the pandemic. Much has occurred since. For a synopsis of events as they were unfolding then, see, e.g., “Coronavirus: the first three months as it happened,” *Nature* (22 April 2020); available [<https://www.nature.com/articles/d41586-020-00154-w>]. Very little updating and light editing was undertaken in the publication of the Concept Note to keep its context at that moment in the history of the pandemic in sharper focus. Some updating

⁵ See, Stephanie Soucheray, “Study of 72,000 COVID-19 patients finds 2.3% death rate,” *Center for Infectious Disease Research and Policy* (24 Feb. 2020), discussing Zunyou Wu and Jennifer M. McGoogan, Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention,” *JAMA* 323(13):1239-1242 (2020).

⁶ Worldometer, “Age, Sex, Existing Conditions of COVID-19 Cases and Deaths” (updated 23 February 2020).

⁷ The numbers continue to be contested but the differences appear to be at the margins by the end of 2020. See Worldometer, “Coronavirus Death Toll” (updated 4 December 220); available [<https://www.worldometers.info/coronavirus/coronavirus-death-toll/>]. The site notes that one of the problems of data analysis was a change in diagnosis classification after 12 February 2020. See, Worldometer, “How to interpret the 15,152 (+600%) surge in new cases of February 12,” available [<https://www.worldometers.info/coronavirus/how-to-interpret-feb-12-case-surge/>].

⁸ “Coronavirus: Outbreak at ‘decisive point’ as WHO urges action,” *BBC News* (27 Feb 2020); available [<https://www.bbc.com/news/world-51665631>].

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While the medical and health implications of COVID-19 are profound, the effects of the disease on governance, law, and international affairs will likely be even more significant and long lasting. Between December and March 2020, as the original epicenter of infection, China was both the first and a particularly hard hit area. China quickly applied a series of strong measures. Core provinces have been effectively quarantined, and the state has had to undertake significant procedures to slow down and more quickly reduce the effects of infection. Many of these measures, modified to suit local conditions, were thereafter adopted as the epidemic morphed into a pandemic from January through March 2020. Chinese officials have had to deal with issues of administrative integrity in the response to the epidemic, as well as the traumatic responsibility to ensure the health and safety of its populations, and the need to rapidly expand its medical facilities to meet the needs of the sick. At the same time, China has seen a substantial collective response by people on the ground who have sacrificed livelihood, convenience and sometimes their lives to meet the threat posed by COVID-19 to the people, the state and society.

The effects of the COVID-19 infection in China has also had profound effects on supply and production chains running through China. For example, Alcoa Corp. recently noted supply chain bottlenecks in China for critical resources; Apple, Inc. announced that it would not meet its 2nd quarter financial guidance; Boston Scientific expected revenues from sales to China to be significantly affected; Best Buy expected difficulty in product availability from goods sources in China for much of 2020; and luxury brands seller Capri Holdings expected the sale of its goods worldwide to be negatively affected.⁹ It has also profoundly affected the way in which the Chinese Communist Party is undertaking its own path to guidance.¹⁰ The supervision

⁹ Ciara Linnane and Jaimy Lee, "What Apple, Microsoft, GE and other U.S. companies are saying about the coronavirus outbreak," MarketWatch (22 March 2020); available [https://www.marketwatch.com/story/what-apple-walmart-and-other-us-companies-are-saying-about-the-coronavirus-2020-02-18].

¹⁰ Larry Catá Backer, "Chinese Policy Moves Forward in the Shadow of COVID-19 Analysis of 习近平主持中央政治局会议 分析国内外新冠肺炎疫情防控和经济运行形势 研究部署进一步统筹推进疫情防控和经济社会发展工作等 [Xi Jinping presides over the meeting of the Political

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of lower level cadres and provincial officials in their political work has also produced significant response.¹¹

The effects have been particularly notable in global financial markets. By the end of February 2020, for example, U.S. market indexes had lost about 4% of their value from pre-COVID-19 trading.¹² Yet, even in this context there were economic winners. Cisco Systems reported that its “Webex division, which develops and sells online meeting and video conferencing applications, has seen an expanded user base in the wake of the coronavirus outbreak. Traffic on some of Webex’s routes in China has increased 22 times, while the company has seen between four and five times as many users in Japan, South Korea and Singapore.”¹³ By April 2020, it was clear that the conventional structures of globalization and the effective operation of global production has suffered.¹⁴

But the effects have not been limited to China. Neighboring Asian states, particularly South Korea and Japan,

Bureau of the Central Committee to analyze the domestic and foreign new COVID-19 epidemic prevention and control and economic operation situation]” *Law at the End of the Day* (27 March 2020); available [https://lbackerblog.blogspot.com/2020/03/chinese-policy-moves-forward-in-shadow.html].

¹¹ Larry Catá Backer, “今晚, 国家监委调查组发布关于群众反映的涉及李文亮医生有关情况调查的通报。 [Tonight, the investigation team of the State Supervision Commission released a report on the investigation of the situation involving Dr. Li Wenliang, which was reported by the masses.],” *Law at the End of the Day* (20 March 2020); available [https://lbackerblog.blogspot.com/2020/03/tonight-investigation-team-of-state.html].

¹² Ed Carson, “Dow Jones Plunges As Coronavirus Stock Market Correction Intensifies; Tesla, Apple, Beyond Meat Notable Losers,” *Investor’s Business Daily* (28 Feb. 2020); available [https://www.investors.com/market-trend/stock-market-today/dow-jones-futures-coronavirus-stock-market-correction-tesla-apple-beyond-meat/].

¹³ Tomi Kilgore and Jacob Passy, “Here’s how the 30 Dow industrial companies are prepping for the impact of the coronavirus,” *MarketWatch* (28 February 2020); available [https://www.marketwatch.com/story/heres-how-the-30-dow-industrial-companies-are-prepping-for-the-impact-of-the-coronavirus-2020-02-27].

¹⁴ Andrés Ortega, “The Deglobalization Virus?,” *The Globalist* (18 March 2020); [available <https://www.theglobalist.com/coronavirus-covid19-pandemic-globalization-deglobalization-globalism/>].

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have been affected. On 28 February, authorities in Hokkaido declared a state of emergency; "The situation has become more serious. I'd like people to refrain from going outside over the weekend to protect your lives and health," Hokkaido Gov. Naomichi Suzuki said in the declaration."¹⁵ Korea faces both a challenge in the protection of life and in the health of its economy.¹⁶ European states have begun to experience substantial potential disruption of life and states have begun to take extraordinary measures in Italy and other European States.¹⁷ In the United States during the same period, President Trump appointed Vice President Pence to head a task force on federal responses to COVID-19.¹⁸ By the end of February Brazil¹⁹ reported its first COV-19 case and the disease has made its way to sub-Saharan Africa²⁰ where "The Nigeria Centre for

¹⁵ "Hokkaido declares state of emergency over coronavirus," *Kyodo News* (20 February 2020); available [<https://english.kyodonews.net/news/2020/02/69d1b85128b9-urgent-hokkaido-declares-state-of-emergency-over-coronavirus.html>].

¹⁶ Dasl Yoon and Chun Han Wong, "South Korea Spends Billions to Blunt Coronavirus' Economic Impact," *The Wall Street Journal* (28 February 2020); available <https://www.wsj.com/amp/articles/south-korea-spends-billions-to-blunt-coronaviruss-economic-impact-11582872869>].

¹⁷ Rosina Sini, "Coronavirus: Quarantined Inside Italy's Red Zone," *BBC News* ((28 February 2020); available [https://www.bbc.com/news/world-europe-51651099]; Weizhen Tan and Holly Ellyat, "France Sees Second Coronavirus Death; Greece Confirms First Case," *CNBC*; available [https://www.cnbc.com/2020/02/26/coronavirus-latest-updates-asia-stocks.html].

¹⁸ "New coronavirus case may be 1st sign of "community spread" in U.S.," *CBS News* (28 February 2020; available [<https://www.cbsnews.com/live-updates/coronavirus-outbreak-death-toll-infections-latest-news-updates-2020-02-27/>]. The Trump administration efforts were generally disliked by the mainstream press. The task force continues under the presumptive new administration after January 2020. See Stephan A. Crockett, Jr., "The Real President Is Working on a COVID Task Force, While the White House Squatter Is Crying on Twitter," *The Root* (9 Nov. 2020); available [https://www.theroot.com/the-real-president-is-working-on-a-covid-task-force-wh-1845620347].

¹⁹ By November 2020 WHO would be alarmed by the surge of cases in both Brazil and Mexico. See "WHO alarmed by Covid-19 surge in Brazil, Mexico," (30 Nov. 2020); available [https://medicalxpress.com/news/2020-11-covid-surge-brazil-worrisome-chief.html].

²⁰ Lara De Meo Hoyt, "Impact of COVID-19 in Sub-Saharan Africa," *Rutgers Global Health Institute* (1 April 2020); available [https://globalhealth.rutgers.edu/news/impact-of-covid-19-in-sub-saharan-africa/].

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Disease Control reported the case on 27 February and said it was working to trace the infected person's contact."²¹ Israel has also reported its first case, with a suspected transmission from Italy, which subsequently became much worse and more controversial in the criticism of official responses.²² In many countries schools, from primary schools to universities, to have been closed and instructors are moving quickly to develop delivery of education remotely.²³ Much of Chinese education has now gone online.²⁴ At the same time universities have begun to ban overseas travel to designated states and to bring students home who are studying abroad.

By April 2020, what had at first been assumed to be a more intense version of prior smaller scale epidemics—SARS, MERS, and the like—exploded into a substantially more lethal and disruptive pandemic. Italy was the first to feel significant effect.²⁵ By February-March, the center of infection moved from Asia to Europe. And in Europe, the initially hardest hit states were in the Mediterranean—Italy and Spain in particular. For both states, the lessons learned were quite hard—from the approaches to containment, to the policies of treating and segregating patients.²⁶ Like Italy, Spain declared a national emergency, imposed severe restrictions on movement, and

²¹ Amy Maxmen, "This Nigerian doctor might just prevent the next deadly pandemic," *Nature* (20 Feb. 2020); available <https://www.nature.com/articles/d41586-019-00615-x>].

²² Eyal Leshem, Arnon Afek1, and Yitshak Kreiss, "Research Letter: "Buying Time with COVID-19 Outbreak Response, Israel," *Journal of Emerging Infectious Diseases* 26(9) (Sept. 2020); available [\[https://wwwnc.cdc.gov/eid/article/26/9/20-1476_article\]](https://wwwnc.cdc.gov/eid/article/26/9/20-1476_article).

²³ "Coronavirus: Japan to close all schools to halt spread," *BBC News* (27 Feb. 2020); available [\[https://www.bbc.com/news/world-asia-51663182\]](https://www.bbc.com/news/world-asia-51663182).

²⁴ Anna Fifield, "In China, 200 million kids have gone back to school. Online," *The Washington Post* 17 Feb. 2020); available [\[https://www.washingtonpost.com/world/asia_pacific/in-china-200-million-kids-have-gone-back-to-school-online/2020/02/17/e5cc6f10-5131-11ea-80ce-37a8d4266c09_story.html\]](https://www.washingtonpost.com/world/asia_pacific/in-china-200-million-kids-have-gone-back-to-school-online/2020/02/17/e5cc6f10-5131-11ea-80ce-37a8d4266c09_story.html).

²⁵ Flora Sapio, "COVID-19 and the Unadorned Italian Experience," *Law at the End of the Day* (30 March 2020; available [\[https://lbackerblog.blogspot.com/2020/03/covid-19-and-unadorned-italian.html\]](https://lbackerblog.blogspot.com/2020/03/covid-19-and-unadorned-italian.html).

²⁶ Megan Williams, "The lessons Italy has learned about its COVID-19 outbreak could help the rest of the world," *CBC News* (2 April 2020); available [\[https://www.cbc.ca/news/covid-19/italy-covid-19-outbreak-lessons-1.5517520\]](https://www.cbc.ca/news/covid-19/italy-covid-19-outbreak-lessons-1.5517520).

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faced an enormous death toll.²⁷ Africa. As well is confronting the pandemic both as a health and an economic calamity.²⁸

The United States confronted the full force of the pandemic only in March 2020. The nation went from an observer to close to the center of infection. Like other nations, its economy, politics, and societal organization has been affected. With state and national orders to slowly and then more quickly require the closure of a substantial portion of the economic sector, the suffering of those infected is now aligned with a substantial portion of the population whose economic security has been threatened.²⁹ The federal government, like many governments in other parts of the world, has sought to ameliorate the suffering through significant infusions of cash (and subsequently the need to incur substantial public debt, the consequences of which remain unknown.³⁰ But these measures may do little more than suggest the extent to which strong governmental and private institutional measures (especially those targeting self-preservation and collective stability) produce a context of free riding in which individuals will eventually bear a substantially large part of collective response.³¹ The resulting political, societal and business risk

²⁷ Sam Jones, "Spain orders non-essential workers stay home for two weeks," *The Guardian* (28 March 2020); available [<https://www.theguardian.com/world/2020/mar/28/covid-19-may-be-peaking-in-parts-of-spain-says-official>].

²⁸ Jonathan Kiwana and David F.K. Mpanga: "Coronavirus Disease Outbreak: Some Legal Considerations for Business in Uganda," *Law at the End of the Day* (1 March 2020); available [<https://lbackerblog.blogspot.com/2020/03/jonathan-kiwana-and-david-fk-mpanga.html>].

²⁹ Benn Ashford, "Shocking scenes in Orlando where half-mile line of cars wait for food bank after theme parks' shutdown put thousands out of work - as government reveals coronavirus has so far made 10 million Americans unemployed," *Daily Mail* (3 April 2020); available [<https://www.dailymail.co.uk/news/article-8180859/Half-mile-line-food-bank-Orlando-cratered-economy-struggles-feed-newly-unemployed.html>].

³⁰ Larry Catá Backer, "Text of the "Coronavirus Aid, Relief, and Economic Security Act" or the "CARES Act" (HR 748)," *Law at the End of the Day* (28 March 2020); available [<https://lbackerblog.blogspot.com/2020/03/text-of-coronavirus-aid-relief-and.html>].

³¹ Larry Catá Backer, "Subsidizing the Free-Riding State and Enterprise Apparatus on the Backs of those Least Capable of bearing that Burden-- The Micro Consequences of COVID-19 and Containment Measures," *Law*

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affects all states irrespective of the character of their political-economic model.³²

COVID-19, then, has left virtually no aspect of human society unaffected in any part of the world.³³ It has intensified suicide and madness as transparency provides both a measure of mitigation and hysteria.³⁴ It implicates and transforms the conversation about sustainability.³⁵ It has produced contests for control of the narrative of pandemic that appears to have been as intensely debated as the efforts made to alleviate the suffering of the infected.³⁶ COVID-19 has been intermeshed with larger political and economic trajectories in the relations between the United States and China.³⁷ It has centered the hard decisions about who lies and who dies, who receives hospital treatment and who does not, in ways that may touch not just on

at the End of the Day (8 March 2020); available [https://lbackerblog.blogspot.com/2020/03/subsidizing-free-riding-state-and.html].

³² Larry Catá Backer, "The Collapse of the 'Quarantine Hotel': Thoughts on Business, Legal, Political, and Societal Risk for State and Enterprise COVID-19 Strategies," *Law at the End of the Day* (7 March 2020); available [https://lbackerblog.blogspot.com/2020/03/the-consequences-of-state-and.html].

³³ Yuri Gonzalez Hernandez, "Report on the Emerging Scope of COVID-19 in Cuba," *Law at the End of the Day* (30 March 2020); available [https://lbackerblog.blogspot.com/2020/03/yuri-gonzalez-hernandez-report-on.html].

³⁴ Larry Catá Backer, "COVID-19 and Suicide—The Dark Side of the Narrative and the Agony of Pandemic," *Law at the End of the Day* (31 March 2020); available [https://lbackerblog.blogspot.com/2020/03/covid-19-and-suicide-dark-side-of.html].

³⁵ Larry Catá Backer, "Sustainability and COVID-19—Water Scarcity, Epidemics, and the Case of Cuba," *Law at the End of the Day* (29 March 2020); available [https://lbackerblog.blogspot.com/2020/03/sustainability-and-covid-19-water.html].

³⁶ Larry Catá Backer, "Dueling COVID-19 Banjos: The United States and China Fiddle With Narrative While the Pandemic Burns," *Law at the End of the Day* (26 March 2020); available [https://lbackerblog.blogspot.com/2020/03/dueling-covid-19-banjoes-united-states.html].

³⁷ Larry Catá Backer, "'Global Supply Chains, Forced Labor, and the Xinjiang Uyghur Autonomous Region'; The Congressional-Executive Commission on China (CECC), Economic Decoupling, and Supply Chains in the Shadow of COVID-19," *Law at the End of the Day* (10 March 2020); available [https://lbackerblog.blogspot.com/2020/03/global-supply-chains-forced-labor-and.html].

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moral choices but on the way in which society values human life in fact even as it asserts a rule of law rejecting such valuations in.³⁸ The spillover of hysteria and false information to other targets also products tragedy, especially when aimed at domestic animals, and principally pets.³⁹ COVID-19 has underlined the substantial connection between health, economics, and politics, on a micro and macro level.⁴⁰ At the same time, COVID-19 has opened a path to a revolution in the use of data driven governance, big data, and artificial intelligence in the management of society and collective responses to pandemic.⁴¹ Lastly, the effects on education systems globally have been profound in the short term—moving much educational delivery to online formats—and may

³⁸ Lauren Fruen, “NYC paramedics are told to STOP taking heart attack patients who have little chance of survival to hospitals already swamped with coronavirus cases,” *Daily Mail* (2 April 2020); available [https://www.dailymail.co.uk/news/article-8180329/NYC-paramedics-told-stop-taking-certain-patients-cardiac-arrest-hospital.html].

³⁹ Larry Catá Backer, “Dogs and COVID-19: An Emerging Tragedy Born of Fear?,” *Law at the End of the Day* (21 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/dogs-and-covid-19-emerging-tragedy-born.html]. Subsequently, it became clear that the fear of infection from family pets was not great. “A small number of pets worldwide, including cats and dogs, have been reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19.” US Centers for Disease Control and Prevention, “Coronavirus Disease 2019 (COVID-19, If You Have Pets,” last updated 9 Sept. 2020. The CDC recommended treating pets like other family members. *Ibid.*

⁴⁰ Larry Catá Backer, “The Convergence of Economics, Politics, and Health as Globalization Moves into its New Era: 16 March 2020 G7 Leader’s Statement,” *Law at the End of the Day* (16 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/the-convergence-of-economics-politicsa.html].

⁴¹ Larry Catá Backer, “Automated Law and COVID-19: Data Driven Measures with National Characteristics In China and Israel and the Future of the Law-Governance Complex,” *Law at the End of the Day* (24 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html]; Larry Catá Backer, “Data Driven Management of COVID-19: The Case of Taiwan,” *Law at the End of the Day* (6 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/data-driven-management-of-covid-19-case.html].

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have lingering effects on the way in which society approaches the conception and delivery of education.⁴²

The COVID-19 epidemic has brought out both the best and worst of individuals and human societies. Perhaps emblematic of these actions was the situation around the quarantining of cruise ships⁴³ It was reported that the “new coronavirus breaks down the promise of the cruise ship as a bubble of independent banality of the open ocean. As the virus — and fears of the virus — spread, the problems balloon, and the bubble bursts. And it shows how that environment reflects the medical, political, and cultural effects of epidemic disease.”⁴⁴ Especially notable was the now well-known challenges for passengers in Japan⁴⁵ and Italy.⁴⁶ For example, while the actions of the Cambodian state in permitting passengers to disembark from a cruise ship was hailed as a positive humanitarian gesture, the discovery after disembarkation that at least one passenger was infected⁴⁷ suggested the challenges that even the simplest action might produce.⁴⁸ But the speed with which states closed

⁴² Larry Catá Backer, “American University Responses to the COVID-19 Infection Threat: CDC ‘Interim Guidance for Administrators of US Institutions of Higher Education (IHE) to Plan, Prepare, and Respond to Coronavirus Disease 2019 (COVID-19),” *Law at the End of the Day* (5 March 2020); available [https://lcbackerblog.blogspot.com/2020/03/american-university-responses-to-threat.html].

⁴³ Nicole Westerman, “Coronavirus-contaminated cruise ships mirror the global crisis,” *The Verge* (20 Feb. 2020); available [https://www.theverge.com/2020/2/20/21145315/coronavirus-cruise-ship-outbreak-diamond-princess-policy-impact].

⁴⁴ *Ibid.*

⁴⁵ “Diamond Princess Updates (through 18 Feb. 2020);” Diamond Princess Website; available [https://www.princess.com/news/notices_and_advisories/notices/diamond-princess-update.html].

⁴⁶ Chloe Taylor, “Costa Cruises says passenger has common flu, after 6,000 tourists were held amid coronavirus fears,” *CNBC* (31 Jan. 2020); available [https://www.cnbc.com/2020/01/30/6000-people-in-lockdown-on-italian-cruise-ship-over-coronavirus-fears.html].

⁴⁷ “Coronavirus: How did Cambodia’s cruise ship welcome go wrong?,” *BBC News* (20 Feb. 2020); available [https://www.bbc.com/news/world-asia-51542241].

⁴⁸ Richard C. Paddock, Sui-Lee Wee and Roni Caryn Rabin, “Coronavirus Infection Found After Cruise Ship Passengers Disperse,” *The New York Times* (20 Feb. 2020); available

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their borders also indicated the fragility of globalization and its encouragement of free movement of people in the wake of fear of infection and the need to protect local populations.⁴⁹ This is particularly acute for states that rely on the quintessential economic sector that embodies the foundational ideal of globalization—tourism.⁵⁰ And it has presented a crisis for morality—as all sorts of actors seek to use the cover of the pandemic to advance partisan political positions.⁵¹

Those best and worst impulses may eventually embed themselves into the patterns of behavior and expressed as law, policy or cultural bias. The outer boundaries of these worst impulses van border on the absurd. On 28 February 2020, for example, it was reported that a survey indicated that about 38% of beer drinkers are boycotting the Mexican beer Corona. “‘There is no question that Corona beer is suffering because of the coronavirus,’ said Ronn Torossian, the founder of 5WPR, the public relations firm which conducted the survey. ‘Could one imagine walking into a bar and saying, “Hey, can I have a Corona?” or “Pass me a Corona”,’ he said.”⁵² At bottom, then, COVID-19 has served to reveal both the strengths and weaknesses of the global structures of human society as it has

[<https://www.nytimes.com/2020/02/16/world/asia/coronavirus-cruise-americans.html>].

⁴⁹ Sarah Marsh, “Four cruise ship passengers test positive in UK – as it happened: Turkey and Pakistan close borders with Iran after eight deaths, while in northern Italy towns are on lockdown after jump in cases,” *The Guardian* (23 Feb. 2020); available [<https://www.theguardian.com/world/live/2020/feb/23/coronavirus-outbreak-woman-tests-positive-after-disembarking-diamond-princess-live-news>].

⁵⁰ Pavel Vidal: “Analysis: Coronavirus to Deliver a Blow to Cuban Tourism,” *Cuba Standard* (16 March 2020); available [<https://www.cubastandard.com/analysis-coronavirus-to-deliver-a-blow-to-cuban-tourism>].

⁵¹ Larry Catá Backer, “Morality and COVID-19: Abortion in the Shadows of Coronavirus and its Challenge for Moral Stances,” *Law at the End of the Day* (24 March 2020); available [<https://lbackerblog.blogspot.com/2020/03/morality-and-covid-19-abortion-in.html>].

⁵² Ariel Zilber, “Coronavirus fear sparks boycott of Corona BEER as survey finds 38% of beer-drinking Americans say they now won’t drink the lager,” *Daily Mail* (28 Feb. 2020); available [<https://www.dailymail.co.uk/news/article-8056489/Coronavirus-fear-sparks-boycott-Corona-BEER-survey-finds-38-say-wont-drink-lager.html>].

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evolved under the current model that was crafted in the wake of the end of the Second World War.⁵³

Outside of China there have been indications of mistrust of Chinese efforts.⁵⁴ Insinuations of the connection between COVID-19 and bio-warfare activity have been made.⁵⁵ Inside China there has been a sense that the epidemic might be used strategically to weaken China. The equation of COVID-19 with China has produced episodes of anti-Chinese behaviors outside of China.⁵⁶ And it has provided an opportunity to express race and cultural prejudice⁵⁷ from eating habits to social organization to business.⁵⁸ At the same time, people have flouted quarantine rules, potentially imperiling others, and increasing the likelihood of more severe steps taken in response by state authorities. Israeli researchers recently reported coming closer to a COV-19 vaccine.⁵⁹ In South Korea “app

⁵³ “COVID-19 revealing little parts of fundamental shifting of global ordering: Prof. Larry Backer,” *Mehr News Agency* (18 Mach 2020); available [https://en.mehrnews.com/news/156860/COVID-19-revealing-little-parts-of-fundamental-shifting-of-global].

⁵⁴ Javier C. Hernandez, “China Spins Coronavirus Crisis, Hailing Itself as a Global Leader,” *The New York Times* (28 Feb. 2020); available [https://www.nytimes.com/2020/02/28/world/asia/china-coronavirus-response-propaganda.html].

⁵⁵ Bill Gertz, “Coronavirus may have originated in lab linked to China’s biowarfare program,” *The Washington Times* (26 Jan. 2020); available [https://www.washingtontimes.com/news/2020/jan/26/coronavirus-link-to-china-biowarfare-program-poss/].

⁵⁶ Quentin Fottrell, “‘No Chinese allowed’: Racism and fear are now spreading along with the coronavirus,” *MarketWatch* (3 Feb. 2020); available [https://www.marketwatch.com/story/no-chinese-allowed-racism-and-fear-are-now-spreading-along-with-the-coronavirus-2020-02-03].

⁵⁷ Natasha Chen, “Coronavirus outbreak leading to racism against Asians,” *CNN* (19 Feb. 2020); available [https://www.cnn.com/videos/us/2020/02/19/coronavirus-xenophobia-hostility-asian-americans-pkg.cnn].

⁵⁸ Oliver O’Connell, “Wave of racist attacks against Asian Americans in wake of coronavirus outbreak,” *The Independent* (UK) (22 Feb. 2020); available [https://www.independent.co.uk/news/world/americas/coronavirus-news-china-asian-american-racist-attacks-a9352576.html].

⁵⁹ Taron Steinbuch, “Israeli scientists claim to be weeks away from coronavirus vaccine,” *New York Post* (28 Feb. 2020); available [https://nypost.com/2020/02/28/israeli-scientists-claim-to-be-weeks-away-from-coronavirus-vaccine/]. As it turned out a vaccine came fast but it was not until immediately after the US Presidential elections in November 2020 that the press in the US and the UK announced vaccine breakthrough that are likely to be viable. See Maggie Fox, “Here’s a look at how the different coronavirus vaccines work,” *CNN* (30 Nov. 2020);

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developers there knew exactly how to react: They started coding. Mobile apps that help track the disease in South Korea ranked as six of the top 15 downloads on the country's Google Play app store on Thursday. Developers of some apps — which source their data from public government information — told CNN Business that they have been getting a surge in downloads since launching their products earlier this month.”⁶⁰ At the same time, devices used to monitor and track individuals may become more commonplace, providing challenges in the context of data protection, markets for data and data use by private and public organs. At the same time, the transparency by state officials has been subject to criticism, and not just in China.⁶¹ But such a policy was tempered by the value of transparency as a positive political and health measure, and the Trump Administration proved adept at changing strategy as the public mood changed.⁶² At the same time U.S. Governors evidenced the resiliency and perhaps re-invigoration of the federal system; the public persona of New York Governor Cuomo was of particular note.⁶³ While there may be perfectly good reasons for these decisions (among them the need to preserve social order and

available [<https://www.cnn.com/2020/11/24/health/covid-vaccines-design-explained/index.html>]. At about the same time reports were circulating of a Chinese vaccine. See Lilli Pike, “In China, nearly 1 million people have reportedly already gotten a coronavirus vaccine,” *Vox* (25 Nov. 2020); available [<https://www.vox.com/2020/11/25/21612338/does-china-have-a-covid-19-vaccine-1-million-sinopharm-sinovac>].

⁶⁰ Ivan Watson and Sophie Jeong, “Coronavirus mobile apps are surging in popularity in South Korea,” *CNN Business* (28 February 2020); available [<https://www.cnn.com/2020/02/28/tech/korea-coronavirus-tracking-apps/index.html>].

⁶¹ Geoff Earle, “White House GAGS government health experts from speaking about coronavirus saying they must have Mike Pence's approval for EVERYTHING they say about mounting crisis - despite VP having zero medical qualifications,” *Daily Mail* (27 Feb. 2020); available [<https://www.dailymail.co.uk/news/article-8052775/White-House-GAGS-government-health-experts-speaking-coronavirus.html>].

⁶² “White House Debates How Far to Go on Face Mask Guidelines,” *The New York Times* (2 April 2020); available [<https://www.nytimes.com/2020/04/02/world/coronavirus-live-news-updates.html>].

⁶³ Alisa Wiersema, Kendall Karson, and Josh Margolin, “Draft Cuomo 2020' groundswell emerges amid the New York governor's coronavirus response,” *ABC News* (31 March 2020); available [<https://abcnews.go.com/Politics/draft-cuomo-2020-groundswell-emerges-amid-york-governors/story?id=69879290>].

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reduce likelihood of irrational panics), it is becoming clearer that, in either liberal democratic or Marxist-Leninist Systems, the failure to justify the modalities of transparency can subject the government and its officials to some sometimes substantial costs.

This Roundtable brings together experts in law and international affairs from Asia, Europe, North America and the Caribbean to discuss the collateral effects of CORVID-19 in those terms. Participants include Sun Ping (East China University of Political Science and Law); Flora Sapio (Università degli Studi di Napoli L'Orientale); Keren Wang (Penn State Dept of Communication Arts and Sciences); Sun Yuhua (East China University of Political Science and Law); Maria Chiara Marullo (Universitat Jaume I Valencia Spain); Gao Shan (Business Analyst, Thompson Reuters, lawyer licensed in China and New York); Miaoqiang Dai (SIA MIA 2019); Nicolas Schulz (Ludwig Maximilians University (MA 2019) (Munich, Germany); Alice Hong (SIA, RNLIA); and Larry Catá Backer (Penn State International Affairs and Law). In addition, interventions will be made with a focus on Africa and the Caribbean region. These may be delivered in written or oral form.

Participants will speak to seven broad issue areas:

(1) misperceptions about the situation in China;

(2) the use of coronavirus as a veil for racism;

(3) national responses to perceptions of crisis;

(4) effects of coronavirus on the movement of people, investment and capital across borders;

(5) consequences of coronavirus for the state of international affairs and legal structures (e.g., quarantines, education, supply and production chains, human rights versus collective responsibilities, etc.);

(6) repercussions for big global trade projects, with specific reference to the Belt and Road and America First initiatives; and

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(7) effects on education and other service industries.

The Roundtable will be organized as follows: Each participant will be permitted a very short initial intervention (about 5 minutes), which can be supplemented by additional written materials posted to the Roundtable Website). Additional interventions may be added. After these initial statements, the Roundtable will be open to questions. The Roundtable will be developed in two forms. All interested individuals and organizations are encouraged to submit questions before 20 March 2020. Questions should be submitted via e-mail to the conference organizers_with the subject line "Roundtable Questions."

Questions will be posted to the Conference Website to encourage further dialogue. These questions will be answered either during the Roundtable or thereafter. Questions submitted during the course of the Roundtable should be sent to the same address and will be answered on the Roundtable Website.

In addition, Inputs are welcome and will be posted to the conference website; participants will respond to questions delivered before the roundtable date. Individuals or organizations interested in submitting inputs should be guided by the theme of this Concept Note and more specifically by the focus of the seven discussion issue areas described above. Please identify yourselves and your organization if any that is submitting the Input and indicate whether you wish to include contact information. All inputs should be submitted to the conference organizers with the Subject heading "Roundtable Inputs."

Given the realities of pandemic mitigation and institutional responses, it is no longer possible to conduct a live meeting. This Conference/Roundtable, though originally conceived as a conventional live event, has now been revised to be delivered as a WEBINAR. We hope that technology will make that change both seamless and of value to individuals who are interested in participating. Conference/Roundtable organizers will strive to make a recording of the event available at a later date.

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Conference-Roundtable—Coronavirus and International Affairs: Program and Participants

Coalition for Peace & Ethics

Video Roundtable 17 April 2020

9.30- 9.45 Introduction: Larry Catá Backer

9:45 – 11.00 A Focus on China: Sun Ping; Miaoqiang Dai; Sun Yuhua; Gao Shan; Alice Hong (each participant to present a 5-10 minute statement; followed by discussion)

11.00 – 12.30 A focus on Europe and North America (Maria Chiara Marullo; Nicolas Scholz; Flora Sapio; Keren Wang; Pini Miretski; Larry Catá Backer (each participant to present a 5-10 minute statement; followed by discussion)

In addition contributions by Yuri Gonzalez-Hernandez (Cuba and the Caribbean) and Bethany Salgado (MNEs and global supply chains, corporate responsibility and sustainability)

Conference Program and Participants

Participants and Contributors

The Conference/Roundtable brings together academics, practitioners, and civil society actors from China, the United States, Spain, Germany, Israel, and Italy, each bringing a unique national and regional perspective to the discussion of COVID-19 in its transnational effects. These effects are simultaneously local (manifesting in specifically contextual ways) and global, manifesting in tendencies to convergence in some respects of principles, practices, and outlook.

Sun Ping:

Sun Ping is an Associate Researching Professor at the School of Law, East China University of Political Science and Law. Prof. Sun's research focuses on constitutional law, fundamental rights, right to privacy, data protection, and freedom of expression. His current research focuses on social credits and data protection, defamation law and free speech, human dignity and person in the constitutional law. He has published two books and dozens of articles, and was invited to have lectures about China's constitutional law at Columbia Law School, Penn State Law, Pontificia Universidad Católica de Chile and Shanghai-NYU. From Oct. 2018 to July 2019, he was a U.S.-China Fulbright Visiting Scholar at the US-Asia Law Institute, NYU Law School.

Flora Sapio

Dr. Sapio is a political scientist and a China scholar, who has taught and/or lectured about themes related to the law and politics of China in China, the Hong Kong SAR, the United States, Australia, Italy, Germany, Austria, Switzerland, Denmark, the United Kingdom, Sweden. She is the author or editor of five books and more than 40 research articles in English and Chinese, commentaries on contemporary issues, and a founding member of the European China Law Studies Association. She currently

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works at her Alma Mater, the Università degli Studi di Napoli “L’Orientale” (Italy).

Keren Wang

Assistant Teaching Professor in Communication Arts and Sciences, Pennsylvania State University (Ph.D., The Pennsylvania State University (2018); M.A., The Pennsylvania State University (2013); B.A., Drexel University (2010)). He studies rhetorical theory, political communication, and history of ideas that shape globalization and its discontents. Publications include *Legal and Rhetorical Foundations of Economic Globalization: An Atlas of Ritual Sacrifice in Late-Capitalism* (1st ed. Oxford: Routledge, 2019). To learn more about his research and teaching interests please access his personal website: [<http://sites.psu.edu/kerenw/>] [1](#)

Maria Chara Murallo

Assistant Professor of Private International Law, University Jaume I, Castellón de la Plana, España, Law Faculty, Department of Private Law, [<https://bit.ly/2ELNxdG>]. Law Degree (University of Bologna). Master in Public and Private International Law and European Union Law (University of Bologna). Master’s Degree in Peace, Conflict and Development Studies (University Jaume I). Doctor *cum laude* from the Universitat Jaume I (University Jaume I). Jaime Brunet Award for the best doctoral thesis for the promotion of Human Rights, Public University of Navarra (2016). She was a Postdoctoral Researcher, Department of Finance and Accounting, University Jaume I, research group “Sustainability of Organizations and Management of Social Responsibility – Financial Markets” (2016-2018); Researcher in the “SMART Sustainable Market Actors for Responsible Trade” European Project (2016-2020) and “Global climate constitution: governance and law in a complex context” Project (2017-2019); Researcher in the European Project “Human Rights in

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Business” (2014-2016), Department of Private Law, University Jaume I. Project coordinator: Professor Francisco Javier Zamora Cabot [Linkedin: <https://www.linkedin.com/in/maria-chiara-marullo-57721253/>].

Gao Shan

Penn State Law (SJD 2018), licensed in New York and China. He currently works for Thomson Reuters Corporation in Minnesota. As a member of Coalition for Peace and Ethics, Dr. Gao has worked to provide guidance for Chinese immigrants in New York State. He produced and distributed the legal education and guidance pamphlet, *Know your Rights, an Information Guide to Basics of New York State Legal System* (CPE, 2018) under the supervision of professor Backer. His academic research focus on the dynamic interaction between law and social order through the lens of commercial activities of multinational corporations. His S.J.D thesis: *The Evolution of China’s Foreign Investment Policy and Law captured the modernization of China’s commercial legal system during the past three decades*, provided a well-documented chronicle of the evolving foreign investment system during the pre-trade-war era (1949-2016).

Pini Miretski

Deputy Director, Planning and Program Development Division, JDC. Pini Miretski has over fifteen years of experience in an international humanitarian relief organization. In 2014, Pini received his PhD in International Law, which dealt with Transnational Corporations and Human Rights from the Hebrew University in Jerusalem. He has also undertaken concentrated training on nonprofit management at Columbia University, NY. Pini has several published articles on the role of non-State actors in international law and human rights. His academic interests focus on international legal theory and the role of nongovernmental actors in transnational law. At his

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work, Pini focuses on strategic planning and innovation at the field of humanitarian relief.

Sun Yuhua

Associate Professor at East China University of Political Science and Law since 2015, with areas of specialization in Constitutional and Administrative Law. Education: PH.D, East China University of Political Science and Law, 2013; post-doctoral studies at Fudan University, 2015; Visiting Scholar, Columbia University, 2015-2016. He has received national scholarships (China) in 2012, and recognized in 2012 as Academic New Talent in Shanghai. He received a China Legal Talent Award for Postgraduate Law Students in 2013. He received funding for the National Social Science Fund Project “How to Resolve the Controversies Over the Compensations For the Victims of Compulsory Immunization” in June 2014. Representative publications: include “Judicial Review Criteria for the Principle of Equality in the Basic Law of the Macao SAR From the Perspective of Typical Cases (*Journal of Henan University of Economics and Law*, 2019(6)); “Making China’s Constitutional Review System Suitable and Effective for China (*Science of Law: Journal of Northwest University of Political Science and Law*, 2018(2)); “Establishing a Legal System for the Investigation of Official Crimes Compatible with Supervision Reform” (*Law Science*, 2017(7)); “The ‘one place, two inspections’ issue should be handled through Annex III of the Hong Kong Basic Law” (*Political Science and Law*, 2017(7)).

Miaoqiang Dai

Former student at the Penn State University School of International Affairs (MIA 2018). Member of the Foundation for Law and International Affairs. Being honored with the College Graduate Excellence Award of Shanghai, he graduated and gained his Bachelor of Laws and Bachelor of Economics from Shanghai University of International Business and Economics in

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June 2017. He also studied political science at Université Paris Ouest Nanterre La Défense in Paris, France as an exchange student in 2015. His researches focus on international investment, multinational corporations, and related areas. In recent years, he participated in a wide range of intern programs including a fund management company, a commercial bank, a property insurance company, and an M&A financial service company.

Nicolas Scholz

Independent researcher. Graduate of Ludwig Maximilians University (Munich) (MS 2018) with experience in Emerging Security Challenges Division, NATO (2019); Sino-German Cooperation Industrie 4.0 (2018-2019); Konrad Adenauer Stiftung (2016).

Alice Hong

Ms. Hong is an MIA candidate at the School of International Affairs at Penn State University and the President of the Research Network for Law and International Affairs at Penn State. Her interests include International Development and International Relations. She has been involved with various campaigns and conferences related to the UN Sustainable Development Goals and applies those experiences to her research.

Larry Catá Backer

W. Richard and Mary Eshelman Faculty Scholar, Professor of Law and International Affairs at Pennsylvania State University (B.A. Brandeis University; M.P.P. Harvard University Kennedy School of Government; J.D. Columbia University). He researches

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in the areas of economic globalization, corporate social responsibility, international affairs, global governance, trade and finance, and on Party-State systems, with specific focus on China and Cuba. He teaches courses in corporate law, Corporate Social Responsibility (CSR), multinational corporations, international institutions, as well as on the law and religion and constitutional law. He has lectured in South America, Europe and Asia. In addition to journal articles and contributions to collected multi-authored works, his publications include *Elements of Law and the U.S. Legal System* (Carolina Academic Press forthcoming 2020), *Cuba's Caribbean Marxism: Essays on Ideology, Government, Society, and Economy in the Post Fidel Castro Era* (Little Sir Press 2018); *Comparative Corporate Law* (Carolina Academic Press 2002), and an edited collection of essays, *Harmonizing Law in an Era of Globalization* (Carolina Academic Press, 2007). He has published over one hundred articles and book chapters in journals in the U.S., Latin Americas, China, and Europe. His short essays on many of these topics may be found on his blogsite: "Law at the End of the Day" website available [<https://lcbackerblog.blogspot.com>].

Yuri González Hernández

Mr. Gonzalez Hernandez is a Cuban Lawyer (University of Havana 2009) who is currently in residence at Penn State where he is working on his LLM degree. He had been worked as legal advisor for different Cubans companies, the tax office of La Havana and The Historian Office of the City of Havana. Since 2016 he has provided legal advice to self-employed workers, and also has participated in non-profit entrepreneur projects, aimed at the development of some communities of the City of Havana. He may be contacted at glezyuri15@gmail.com.



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Larry Catá Backer for CPE

Conference Program and Participants

B. Proceedings

Conference-Roundtable—Coronavirus and International Affairs: Participant and Contributor Interviews

Coalition for Peace & Ethics

In the days leading up to the Conference/Roundtable, CPE had an opportunity to sit with some of the Conference participants as well as some important Conference participants for short interviews. Most of the interviews may be accessed here:

Larry Catá Backer Interview (speaks to the rationale for focusing in international rather than national approaches to the COVID-19 pandemic; the semiotics of the virus in terms of imposing meaning through nationality, through morality, and through responsibility); access interview at [https://www.youtube.com/watch?v=9jgYvKzy_qg&t=48s].

Yuri Hernandez Gonzalez Interview (speaking to COVID-19 in Cuba and the Caribbean; the role of Cuban medical diplomacy abroad; economic repercussions respecting pharma and the tourist sector); access interview at [https://www.youtube.com/watch?v=UYZSlkwrsHU&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=3].

Alice Hong Interview (speaking about COVID-19 from the perspective of a foreign student at a US university; reflections on the way that the great drivers of international relations produce personal and individual effects); access interview at [https://www.youtube.com/watch?v=GuYj251Ujyo&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=4].

Proceedings: *Conference Interviews*

GAO Shan interview (speaks about life under COVID-19 across the US-China divide. Dr. Gao grew up in Wuhan where his parents still live and work. He is currently working in the US Midwest. He speaks to us about the situation in Wuhan from the perspective of an insider from the outside and then relates those experiences in thinking about the differences in the way that the pandemic is experienced in Wuhan and in the US Midwest); access interview at [https://www.youtube.com/watch?v=4KWypsBCB]w&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=5].

Keren Wang interview (Dr. Wang, who researches in the areas of rhetoric and discourse, provides a superb interview that started with a wide ranging discussion of the difference between the US and China in terms of their response to the Pandemic. He then considered how that response and this pandemic has shaped its own discourse in both countries, contrasting the way that discussion is constructed by officials, the media, and among common people); access interview at [https://www.youtube.com/watch?v=5uoFAPF_LKs&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=6].

Jonathan Kiwana interview (Mr. Kiwana is a lawyer and constitutional scholar in Uganda (and a former student), he speaks to the way that Uganda and neighboring states confronted COVID-19 and the pandemic. He spoke as well to the substantial differences in approach. He also considered the role of the African Union and IFIs, as well as the role of Multinational Enterprises in meeting the COVID-19 challenge. He ends with a reflection on the post pandemic future of international relations from an African perspective); access interview at [https://www.youtube.com/watch?v=88nkCaSZLrk&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=7].

Pini Miretski interview (speaks to the state, technology and the response of Russia, Ukraine, Israel, Turkmenistan, and Belarus in meeting the challenges of the COVID-19 pandemic. He first considers the current responses among these states form a comparative perspectives, and then considers the role of technology in each nation's response. He ends by examining some positive aspects—the spike in volunteerism in these states, as well as the role of business and civil society); access interview

Proceedings: *Conference Interviews*

at [\[https://www.youtube.com/watch?v=M8RABBqDN-0&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=8\]](https://www.youtube.com/watch?v=M8RABBqDN-0&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=8)

Nicolas Scholz interview (spoke to the situation in Germany, a federal Republic with its own brand of center-periphery issues that are different from that between the US States and federal government. He spoke as well to COVID-19 from a European historical perspective, situating it within a century of shocks that adds perspective. And he considered the implications of COVID19 on social cohesion pulled between nationalism and globalization. Lastly he considered the way that COVID-19 might play a role in the contradictions between politics and administration, reacting to the debating point: does COVID-19 inaugurate the age of the technocrat and institutional administrator displacing the political actors at the center of the organization of the state), access interview at [\[https://www.youtube.com/watch?v=SHWntp8CflQ&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=9\]](https://www.youtube.com/watch?v=SHWntp8CflQ&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=9).

Bethany Salgado interview (spoke to issues of the challenges of COVID-19 for business with particular focus on the consumer products industry. She considered COVID-19's effects on supply chains, on supply chain diversification, and on the possibility of returning supply chains "home." Lastly she spoke about business and human rights in two respects: the first was relating to corporate responsibility for the integrity and welfare of stakeholders in its supply chain; the second touched on the responsibility of enterprises for worker protection in the form of PPE and obligations to sanitize workplaces); access interview at [\[https://www.youtube.com/watch?v=Hgw1kyecjfo&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=10\]](https://www.youtube.com/watch?v=Hgw1kyecjfo&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=10).

Yuri Gonzalez Hernandez interview (For this 2nd interview Mr. Gonzalez Hernandez speaks to us around the broad theme of "Cuban doctors and medicines in the fight against pandemic"/"Médicos y medicamentos cubanos en la lucha contra pandemia." The object was to consider four broad questions: 1. Médicos Cubanos/Cuban doctors and medical internationalism 2. Medicamentos/ medicines and medical treatment advances 3. Lo que están haciendo los médicos en Cuba/what doctors are doing in Cuba 4. Médicos cubanos en el exterior (Latinoamérica)/Cuban doctors abroad (especially in

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Latin America); Access interview at
[https://www.youtube.com/watch?v=v6heNyNltHk&list=PL6pg8c3VR_wPL4EtXwvoPYiD7VDy1YDb9&index=13].

* * *

B. Proceedings

Conference-Roundtable—Coronavirus and International Affairs: Interventions

Interventions are short essays and other writings prepared by Conference-Roundtable participants and contributors in the lead up to the event. They form an integral part of the Conference-RoundTable proceedings and were written with two principal objectives. The first was to develop a contemporaneous record of various aspects of the pandemic at a time when COVID-19's scope and effects were only becoming known. They were, in this sense, meant to bear witness to the events as they unfolded. The second was to supplement the oral presentations and discussions during the Roundtable event. The interventions were to provide foundational materials and background to inform the final discussions held during the course of the April 2020 videoconference portion of the Conference Roundtable events.

The Revelations of COVID-19 and the Most Significant Developments in the International Arena During the Last 12 Months

Larry Catá Backer¹
17 March 2020

The last twelve months have proven to be one of those moments in human history when the many trajectories of human history, expressed in its politics, culture, economics, law, and social organization both converge and explode. That explosion at last begins to reveal the emergence of what the Chinese have been calling a “New Era” (though without recognizing its global extent) and the baseline premises within which New Era societies will be organized. It exposes, as well,

¹ Member, Coalition for Peace & Ethics; W. Richard and Mary Eshelman Faculty Scholar, Professor of Law and International Affairs at Pennsylvania State University (B.A. Brandeis University; M.P.P. Harvard University Kennedy School of Government; J.D. Columbia University).

those structures and aspirations which will be shed and those that will now be centered as humanity follows its many paths forward. This is no *hyperbole* meant only to catch the attention of the reader, only to deliver some sort of meager analysis, or worse, to marshal paltry and limp evidence that amounts to little more than “business as usual” with winners and losers. The last twelve months—at last, and as the culmination of a process of momentous decisions made from about the start of this century—have put a face on the forms that the abandonment of “business as usual” will take. And so, to answer the question—“what has been the most significant development in international arena during the last 12 months and why?”—is this: the exposure of the fundamental shifting of the basic premises of global ordering, however manifested in a local context. The event that has revealed the significance of all of the little parts that constitute the shift has been the COVID-19 pandemic, whose course is as yet impossible to predict with any certainty, but whose progression has made visible the connections between what, in ordinary times might have been happily considered to be only serendipitously connected events.

Revelation, then, is the most significant development in the international arena during the last twelve months. The revealing agent has been the pandemic—something not unusual in human history. What has been revealed is the parallel movements among the world’s great civilizations of movements toward a changed basis for their internal organization and their external relations. Let me briefly identify some of the critical markers of this shift that have now been exposed.

1. *The revelation of regionalization.* The trade war between China and the United States. The emergence of America First and the Belt and Road Initiative and its resulting frictions with the EU. The rise of the great regional conflicts between Ottomans, Sunni and Shia Islam. The great fights among the nations locked within post imperial borders in Africa. The emergence of Russia as an Asiatic power, abandoning its Petrine ambitions cultivated since the reign of Peter the Great. These are all the markers of regionalization that were exposed with a vengeance during the course of the last twelve months. I

have suggested² the way these also reveal the abandonment of the fundamental ordering premises of the golden age of globalization (even if its ideals were usually imperfectly embraced and implemented) in favor of a post-global imperialism. The new empires—and their regional principalities) now operate in parallel to the emergence and operation of the great economic global empires managed through apex multi (or trans)-national enterprises. Governance has become a business. Politics has become management. Control has become a relational concept applied through the maintenance of networks of linkages creating vertical structures of control. The last twelve months have revealed more clearly their structure and operation.

2. *The revelation of managed civil warfare in liberal democratic states.* The civil war among elites in the United States which started with the displacement of controlling factions in the aftermath of the 2016 national elections, and their push back thereafter, culminated in the impeachment and Senate Trial of the President of the United States. It had no formal effect on the status of the elected officials involved. But it did starkly reveal the battle lines for contests of real power in the United States. That revelation was extended during the process of selection of the nominee of the American Democratic Party for the 2020 Presidential election. That process revealed both the way in which mass participation in factional politics is managed, and also the way that narrative (the vehicle for management) is used to guide the electorate toward an “appropriate” decision. But that narrative was as much in evidence in the civil war raging within the European Union itself that produced both the end of the process of Brexit and exposed the civil war between the EU’s metropolis (the original members) and its outpost regions to the East and South of the European heartland in the territories of the old Carolingian Empire.

3. *The revelation of the return of borders but in a new way.* COVID-19 has brought borders back. But these are not old fashioned borders which tended to be an all-or-nothing thing. Instead, COVID-19 has revealed the characteristics of post-modern borders. These are contingent borders, temporary

² Coalition for Peace and Ethics, Essay Series on Empire, available [<http://lcbackerblog.blogspot.com/search/label/CPE%20EmpireSerie>].

borders, permeable borders, and borders that crisscross not just relations among states, but relations within states. More importantly, perhaps, the post-modern border reveals that it may be erected not merely by public, but also by private. Just as states increasingly closed their borders to entry (or sometimes exit) based on a variety of contingencies and conditioned on a number of factors—all managed by a large cadre of administrative officials operating at the edges of conventional regulatory authority, but private actors also swiftly moved to close the borders on their global production chains. To understand borders after 2019, one must not just watch the frontiers between states, or that between sub-national political units; instead to understand borders after 2019 one must carefully watch the frontiers of economic production organized through clusters of private (and sometimes state owned) enterprises whose extra-national territories are emerging as important for economics as territorial borders are important for politics.

4. *The revelation of the transformation of warfare.* Over a decade ago I argued that the trajectory of global development, grounded in ancient premises strongly held among core religious and secular communities, was to transform warfare from a unified notion of total war, to one in which the object was to preserve the economic value of populations as those who managed them fought over their control.³ Warfare has fractured, and in place of a single set of rules of combat, a polycentric system has emerged. Among the great powers, there is now firmly entrenched a culture of avoiding traditional military campaigns as too costly and to substitute non-military techniques and precision and mostly remote strikes on key targets. States pay an increasingly large price for collateral damage of productive populations. But they appear to pay much less of a price for targeted killing. The assassination of Suleimani in 2020⁴ serves as an important marker of this trajectory, as does the decision by the Americans to withdraw their traditional forces. Among the lesser powers, a combination

³ Larry C. Backer, "The Fuhrer Principle of International Law: Individual Responsibility and Collective Punishment," *Penn St. Int'l L. Rev.* 21:509 (2003)) available [<https://elibrary.law.psu.edu/psilr/vol21/iss3/5/>].

⁴ "Soleimani assassination News," Aljazeera; available [<https://www.aljazeera.com/topics/events/200103131449509.html>].

of strategic strikes and capacity based nonmilitary strikes (propaganda campaigns and disinformation, cyber-attacks, agit props through agents, manipulation of economic and political tensions, etc.). The killing of Khashoggi in Turkey provides the exemplar in 2019.⁵

5. *The revelation of the power of migration.* The narrative of migration after 1945 was based on guilt—the guilt of complicity in the extermination of minority peoples in Europe. The resulting narrative posited that migration was a positive and involved individuals fleeing oppression for the purpose of seeking a new life embedded within a welcoming host culture. There were exceptions of course—the political use of refugees as casualties of war (the Palestinians, the Afghans, the Rohingya, etc.)—but for the most part refugees (especially for example starting with the huge population shifts in Europe after 1945) were treated not as national or ethnic movements so much as individual relocations. But 2019 revealed two important aspects that will help reshape the narrative of migration. The first was the organization of migration as a cultural and political force. The second was the transformation of migration as a business. The migration caravan played a critical role in this displacement of narrative.⁶ But so did the rise of slave markets in which migrants served as a principal source.⁷ But slavery at the periphery masks the larger emergence of the badges and indicia of servitude in many parts of the world. That, in turn, revealed the economics more broadly of the conflation of trafficking in people (individuals) and migration (as an aggregate phenomenon), with the detritus of traditional methods of managing the peripheries of empire in the traditional manner.⁸ The dominance of the post 1945 narrative

⁵ “Jamal Khashoggi: All you need to know about Saudi journalist's death,” BBC News (19 June 2019) available [https://www.bbc.com/news/world-europe-45812399].

⁶ “Central American migrant caravan continues march toward US,” *Deutsche Welle* (21 October 2018) available [https://www.dw.com/en/central-american-migrant-caravan-continues-march-toward-us/a-45972978].

⁷ Ted Galen Carpenter, “Whitewashing the West’s Disastrous War in Libya,” *American Conservative* (28 February 2020) available [https://www.theamericanconservative.com/articles/whitewashing-the-wests-disastrous-war-in-libya/].

⁸ “What is Modern Slavery?,” Office to Monitor and Combat Trafficking in Persons, U.S. Department of State available [https://www.state.gov/what-is-modern-slavery/].

of the migrant is losing its predominance in the face of the realities of the consequences of coordinated (either passive or active) of peoples whose organizational structures remain intact after shifting territorial bases. The result has so far strengthened the tendency to revive borders with respect to the free movement of people but to reconstitute them as a choke point for relations among entities.

6. *The revelation of the movement from law to management; from regulation to data driven governance and social credit systems.* Global human institutions have long been moving away from the traditional ideologies of law and regulation to data driven governance systems. These have been shifting power from political to administrative actors, and from those who make policy to those who develop and implement systems for the processing of data and the extraction of judgments from data.⁹ COVID-19 now reveals the extent of social acceptance of the modalities of data driven governance, and the popular acceptance of such uses. Strategies of containment are effective only when data driven. States and other actors rely on statistics, on data, in order to manage responses and to check effectiveness of measures. People can be judged by reference to measures—and people can judge themselves against data driven measures more effectively than against more abstract principle.¹⁰ The principles now lurk in the background, but their expression is legitimate only as it can be reduced to a set of measurable acts. That is what COVID-19 and the last twelve months now reveal more clearly.

7. *The revelation of globalization as a reactionary movement.* The great structures of a global order post-1945 has now become a reactionary position. It has taken nearly a decade in China and almost four years in the US (the Europeans are still working their way to enlightenment), but what is clear is that the highest expression of the old order—the *ancien regime*—in each of these political systems has now passed into history. This revelation will be met by vigorous objection by our globalist

⁹ Coalition for Peace & Ethics, Social Credit Essays, available [<http://lcbackerblog.blogspot.com/search/label/Social%20Credit>].

¹⁰ Larry Catá Backer, “Data Driven Management of COVID-19: The Case of Taiwan,” *Law at the End of the Day* (6 March 2020) available [<http://lcbackerblog.blogspot.com/2020/03/data-driven-management-of-covid-19-case.html>].

“White Russians”¹¹ now form a vanguard not of progress forward from where we find ourselves today, but back towards where we were before 2013. Theirs is an unalterable clinging to a fading old order that will be unlikely to re-emerge in its prior form, and an unalterable opposition to the revolutionary political climate that has descended on the world’s orderings, much more clearly revealed now in the shadow of COV-19. The last 12 months has revealed that yesterday’s progressive vanguard has, in the course of the emergence of the New Era, become today’s reactionary elements. And that consequence will be judged either a great tragedy or a great forward leap given the inevitability of human societal development—but that is a judgment denied contemporary society. We are forced to live in our times, not to judge it.

8. The revelation of the convergence of systems. COVID-19 is both pandemic and metaphor for the transition from the end of an era and the beginning of another. But it is a transition which appears to be true to the convergence at the heart of globalization. Rather than see in the national responses to COVID-19 a tendency toward fracture—as each state seeks to draw back on itself one sees the opposite. Certainly, each state has used the opportunity to solidify its borders, a topic already considered. But the techniques that states used has been remarkably similar, even as their political rhetoric emphatically trumpets their respective fidelity of contextually unique political-economic (cultural) models. The techniques that has emerged as the new element of transnational governance include those of surveillance, of the use of data for behavior management, and of the re-conception of pre-pandemic civil liberties (and its discourse) to justify emerging patterns of authority to state or private actors to strip individuals of their autonomy and control of their actions. What emerges is a consensus that individuals ought to be required to serve institutions (public and private) and that the degree of institutional control is a function of the character of the relationship between the individual and the institution—as employee, as citizen, as resident, as consumer, as patient, and the like. It is from this sameness of approaches to institutional control, and the mechanisms by which that is achieved, that the

¹¹ Richard Lockett, *The White Generals: An Account of the White Movement and the Russian Civil War* (NY: Routledge, 1971).

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Larry Catá Backer

The Revelations of COVID-19

emerging contours of post pandemic globalization will become clearer.

* * *

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We did not Start the Fire, it has Always been Burning Since the World Began Turning

GAO Shan¹

13 April 2020

It is an understatement that I experienced the mixed feelings that so often associate with current challenging times when I received the invitation to contribute to this event. This is particularly true when I am a Wuhaner who lives outside China in the U.S. and was in the US Midwest when the nightmare unfolded after January and then spread into every corner of the world.

The readers will find these complex issues broadly and ably addressed by serious thinkers that I have the greatest respect. I hope what I shared here with you today will add some value to what they can offer.

¹ Member, Coalition for Peace & Ethics; Penn State Law (SJD 2018), licensed in New York and China.

The historical event of Covid-19 demands presence and attention from every human being on the planet. After all, the destructive power of the virus expressed so clearly and so effectively cross the border, race, culture, religion, and ideology. Any assessment of the impact and legacy of the Covid-19 pandemic will be a monumental project that continuing demand questions and answers from generations from now on. A degree of humility, caution, and reflection is in order. Of equal if not more important, we must recognize our limitations and our flaws in front of such power. Perhaps, the most respectful thing we or I can do to those lost lives in this crisis is to reflect and to change, so my or our loved ones can live a protected life, away from harm.

In developing my thoughts and reflection toward this crisis, here are some questions and thoughts:

Q and A

Tell us about your life after the Covid-19 outbreak.

I am a Wuhaner currently living in the U.S., the State of Minnesota. My family and friends live and work in Wuhan, a city of a 10 million population that I called home, also the origin of the virus outbreak. So far, My family and friends are fine and healthy. I am considering my self lucky, and I am grateful that no one I know so far has been infected by the virus.

Right now, the U.S. is in the middle of this health crisis. By April 12th, the State I live, Minnesota has reported confirmed cases of 1621, and we are experiencing the highest increasing cases (194) today and expecting more to come in the coming days. Comparatively, this number is much lower than many other states, including our neighboring State, Wisconsin 2885. Minnesota has been under Stay at Home order since March and believed to continue until May 4th.

Since January, I've been in close contact with my family and friends in Wuhan to understand the development of the Covid-19 outbreak. Obviously, pouring concerns of the well being of family and friends went to an opposite direction when the virus being contained in Wuhan by early April. Still, they started to spread crazy in the U.S. since Mid-March.

I am right now working from home, like most Americans who are lucky to have a job, try to spend about half an hour in the park or patio to stretch my body or take some walk to feel the nature. It is not ideal and not normal, but this is better than many others who are less fortunate.

What it is like to be a Wuhaner live outside Wuhan during the Covid-19 pandemic

Yes. As a Wuhaner lives in the U.S., 18 thousand miles away from my home and family, it is an understatement that the past four months have been difficult, for obvious reasons. Like most of the people right now, I have been through stages of an emotional roller-coaster.

However, what singles out Wuhaner from others for this Covid-19 pandemic experience most was the prolonged excruciating experience about human tragedy and crisis. If we consider the pandemic as sports events, most people only experience half of the game, Wuhaner lives in a foreign country are experiencing the full game.

We are part of this crisis from the beginning of January, and we live through the shock, anger, sadness and regret through words, voice, and pictures of our family and friends. It is regretful to see familiar views of the beloved city landscape be part of global tragedy as unthinkable unfolding in front of yourself. A wave of powerless painfully consumed your daily life since January when the rest of the world are comfortable carrying on with their routines that we might not be able to return for a very very long time. For a very long time, tragedy in Wuhan has seen through the lens of news in foreign countries, as always, it has been constructed and consumed as a faraway and unbothered event, offered to spectate. But now, we are experiencing the same tragedy again, in a foreign country, in the same fashion, same manner, same mistakes that Wuhan occurred, months ago. It is painful already to see Wuhaners are dying in such a large number, and doctors and health care workers are exhausted and frustrated from the crisis for just one time. It is even more crazy to have to live through this again.

Tell us your observation of virus outbreak as a Wuhaner in U.S.

I first read about the virus in late December from the Internet. Everyone in China was in the mood of preparing Chinese Lunar New Year and content with the conclusion of first-round Trade Deal with the U.S. American media was busy with Democratic Presidential Nomination.

The local administration's initial reaction was mild and careful. The cases was low, the contagious was not severe, and the spread is contained. Questions and doubts followed this reaction before the lockdown.

Many people left the city before the effective of lockdown on January 23rd. No one knows that will last for next 76 days, many won't survive it, and it spread into the globe.

City life deteriorated progressively. Initially, people are curious, singing, and cheering for the city. That optimism soon replaced by horrible news people get sick and die so fast. The hospital was overwhelmed. People wait for hours to see a doctor but then refused for lack of hospital beds. Dead bodies lie on floors without anyone to move it. There are cases of family infection, sometimes all family dead except young kids.

U.S. soon closed its border to China in January. There were no enhanced measures to people traveling from elsewhere, even when later a similar number of cases reported in Europe. Chinese oversea read terrible news from friends and family and western reports. Self-organized Chinese starting to send PPE back home in February.

It took a while, but ultimately, central government sent out medical staff from around the country to Wuhan for helping. Tent hospitals and special care facility built overnight to help the sick. Similar enhanced measures done nationwide in February. Lockdown becomes a norm in the whole China.

Rumors about Bat soup or bioweapon circulated in western media in February. Western media taken it as an unbothered event for political and social commentary. I am starting to warn my colleagues about the virus and the necessity

of stock up a few supplies. There was no mask available in the Market during February in Minneapolis. I am saddened by the events in Wuhan and wondered when the last normal weekend in the U.S.. WTO refused to say this could be a global pandemic. U.S. stock price was very high and the market was excellent, too good to be true considering how bad the virus spread in China.

The U.S. media was denominated by the Democratic presidential nomination for the whole of February. There are increased concerns for the spread of the virus on the Cruise ship and Europe. The Whitehouse denied the severity of the outbreak, the same happened to U.K. The virus started to spread in Europe, and Italy hit hard after many believed the virus only affects countries with less transparent political systems, such as Iran. New York Fashion Week continues, and nothing really changed by February.

The virus ultimately comes by the mid of March with the large number of confirmed cases in C.A., WA. It was unbelievable that N.Y. remained extremely low cases by early March. U.S. media started to focus on virus outbreak, complaints about lack of PPE, and lack of medical resources begin to emerge. Many public events canceled. By Mid-March, WTO still plays down the severity of the virus, many fortunes 500 companies, like the one I worked for, refer to WTO advisory for the virus. No one believes it will be a lockdown. The U.S. Market was great by March.

We are now in the global pandemic by the last two weeks of March. The lockdown happened, the market crash happened, the unemployment happened, the sudden death happened. Everything happened in Wuhan repeat again in the U.S. We did not start the fire, but the fire keeps spreading as the world is burning.

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GAO Shan

We Did Not Start the Fire

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Cuba now dealing with the COVID-19

Yuri González Hernández¹

30 March 2020

Cuba is a country world-widely recognized for having good prepared doctors who work for vocation first than for the profit. The Cuban doctors and scientists have developed as such a good professional based on their desire to offer wellbeing to the patients in general.

The world has experimented since the end of the last year others of the most dangerous pandemics ever seem. This is the COVID-2019 started in the city of Wuhan, China in December

¹ Mr. Gonzalez Hernandez is a Cuban Lawyer (University of Havana 2009) who is currently in residence at Penn State where he is working on his LLM degree. He had been worked as legal advisor for different Cubans companies, the tax office of La Havana and The Historian Office of the City of Havana. Since 2016 he has provided legal advice to self-employed workers, and also has participated in non-profit entrepreneur projects, aimed at the development of some communities of the City of Havana. He may be contacted at [glezyuri15\[AT\]gmail.com](mailto:glezyuri15[AT]gmail.com).

2019. No one imagines at that time that this disease could reach a world magnitude. Since January this virus has become a world issue so many citizens from many countries around the world had been infected and the propagation of the virus has been faster than the preventive measures for avoiding the infection.

Cuba despite being a country with a good health care system, was one of the countries that didn't take the spread of the COVID-2019 so serious. One of the things that make me believe this, was the fact that even though it was public domain that the COVID-2019 didn't have until the moment a cure, one of the measures for stopping the infection was the social isolation. This was the first measure taken in China and was recommended for every country. Between January and February were registered cases in Latin America and the Caribbean. At that time some Cuban agencies began to promote Cuba as a tourist destination ignoring the complex world situation and oblivious to the published data that showed the numbers of infections in the different European nations from which tourists were arriving on the island. At the beginning of March Cuba was one of the Caribbean nations without any reported case. Unfortunately, this situation changed after March 10th. It was precisely through tourism, that Cuba began to deal with the virus and the consequences that it brings.

The first case of coronavirus in Cuba occurred on March 11, 2020.

The government confirmed the first 3 cases, with three Italian tourists being affected, being immediately admitted to the Pedro Kourí Institute of Tropical Medicine. The three COVID-19 positive tourists in Cuba came from Lombardy, the region of Italy with the highest number of cases.

On March 12, the Cuban authorities confirmed the first case of a Cuban with coronavirus in the province of Villa Clara. The patient's wife is a Bolivian national and resident in Milan, Italy. Both visited Italy, although according to the authorities she did not contract the virus and remained asymptomatic.

On March 18, one of the Italian tourists who arrived on the island with the disease died. The patient was 61 years old and had a history of bronchial asthma.

On March 19, 2020, the Cuban authorities confirmed 5 new cases, 4 foreigners and one Cuban resident in Italy who had arrived in Cuba just a few days ago, increasing the number to a total of 16 cases.

The Cuban government announced on March 20 the closure of the borders as of March 24, having reached the figure of 21 infections by COVID-2019 and 716 in preventive isolation, finally understanding the serious consequences that would continue to receive foreign visitors in the country. In such a way that only Cuban residents can enter, that is, they have not been outside for more than 24 months; as well as foreigners residing on the island.

On March 21, the first local transmission event was reported on the Island, specifically in the municipality of Cárdenas, Matanzas province. The fact is related to one of the cases diagnosed on that date. This is the case of an entertainer from a hotel in Varadero. Its source of contagion, it was said, was a group of Italian tourists. From this patient, 53 contacts were identified, which are isolated and under epidemiological surveillance. In the following days, four relatives and a friend were positive for the coronavirus.

On March 21, 2020, authorities of the Cuban Ministry of Public Health (MINSAP) reported on the worsening of the health status of two of the 21 patients diagnosed with COVID-19. The same date the MINSAP announced 4 new cases, which correspond to the report of March 20, 2020, the total number of cases infected on March 21 is 25.

On March 22, 2020, MINSAP announced 10 new cases, which correspond to the report of March 21, 2020, the total number of cases infected as of March 22 is 35. The same day a MINSAP note informs that in Cuba there are "admitted for clinical-epidemiological surveillance, in the isolation and care centers created for this purpose, 954 patients: of them 255 foreigners and 727 Cubans.

Another 30,773 people are monitored in their homes, from Primary Health Care ".

On March 23, MINSAP reported 5 new cases corresponding to March 22, 2020, for a total of 40.

On March 24, MINSAP reported 8 new cases corresponding to March 23, 2020, for a total of 48 confirmed cases, 1,229 cases under surveillance and 1 patient discharged.

On March 25, 9 new confirmed cases corresponding to March 24, 2020, were published by MINSAP, for a total of 57 coronavirus cases in Cuba.

On March 26, 10 new confirmed cases corresponding to March 25, 2020, were published by MINSAP, for a total of 67 cases of coronavirus in Cuba.



On March 27, MINSAP reported 13 new cases that correspond to March 26, 2020, with a total of 80 confirmed cases, 1,851 suspected cases admitted. 1

On March 28, 39 new confirmed cases were reported, bringing the number of cases to a total of 119 infected people. The director of the national institute of Epidemiology of the Ministry of Public Health declared that Cuba is in the epidemic stage, or stage II. This means that people must strengthen care through the use of the masks, as well as maintain interpersonal distance.



Of the 39 new cases identified: 25 have their source of infection abroad, 10 are related to previously confirmed cases and four other contacts of people from countries at risk, who are no longer in Cuba.

To date, Cuba has 119 cases in total, 4 of which have recovered and 3 have died. Among the new cases reported are 5 minors of age, which are in good clinical condition and are evolving satisfactorily.

In their entirety, the registered cases belong to Cubans; 25 of them were infected abroad, as they arrived from the United States (11), Spain (3), Panama (3), Mexico (3) and, in number, one from Guyana, Peru, Haiti, Canada and Nicaragua.

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2. "Cuba: primer caso de transmisión local del coronavirus," On Cuba News (28 March 2020); available [<https://oncubanews.com/cuba/cuba-primer-evento-de-transmision-local-del-coronavirus/>].

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Storytelling and Authoritarianism in a Brave New World

Nicolas Scholz¹

11 April 2020

"Is it just me or is it getting crazier out there?", asks Arthur Fleck his audience before he becomes the Joker. It's a good question considering the perceived decline of the West.² Indeed, we may be quick to agree that it's getting crazier out there. But where exactly? In the Joker's fictional world, in ours or in both? Certain is only that COVID-19, climate change, social inequality, man-made disasters, the rise of extremism and

¹ Independent researcher. Graduate of Ludwig Maximilians University (Munich) (MS 2018) with experience in Emerging Security Challenges Division, NATO (2019); Sino-German Cooperation Industrie 4.0 (2018-2019); Konrad Adenauer Stiftung (2016) .

² See, the 2020 Munich Security Conference report: available [https://securityconference.org/assets/user_upload/MunichSecurityReport2020.pdf].

scandals of all sorts is keeping us busy once we have entered the world of social media. There is no salvation from this fact.

However, it's important to differentiate between cause and effect. In doing so, we far too often succumb to our own confirmation bias and identify the menace depending on our own position in society: It's the elite vs masses, the poor vs the rich, the insiders vs the outsiders, men vs women, the vegans vs the meat-eaters, the old vs the young. The list is endless. But it's not that simple at all. In reality, the menace is to be found with us, ourselves, the Arthur Flecks of the real world and the personal grievances we hold against the "rigged system".

The "rigged system" describes a world that has become too complex for easy solutions and too transparent for difficult compromises and instead increasingly ruptures around questions of identity. In such a world the art of story-telling become ever more important as the "global battle of narratives" of China and Russia vs the West in face of the current pandemic, COVID- 19, vividly brings into the forefront of the global audience.³ And indeed without the audience, the power of these narratives would as quickly vanish with the daily tides of information as they have arrived.

Already William Shakespeare knew that "the world is a stage and all the men and women are merely players", but it was the renowned Canadian-born sociologist Erving Goffman who explored the intricate and ambivalent relationship between the story-teller and her audience in his seminal work *The Presentation of the Self*. According to Goffman, we play a range of different roles determined by the situations we take ourselves to be in. In his view, there is no true self and we are damned to juggle with a variety of "masks" (quite literally in times of COVID-19) depending on the social performance unfolding before our eyes.

Although Goffman later modified his line of argument insofar, as he believed that our private lives offer a reclusive

³ Geopolitical symptoms of COVID-19: Narrative battles within the Eastern Partnership, Policy Brief (08.04.2020) available [https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/EZ_Flashlight_04_2020_ENG_MK.pdf].

backstage, the granular measuring of the individual and her habitat in the digital panopticon begs the serious question of whether he was not right in the first place. To paraphrase Shakespeare, if we have our entrances to the digital theaters of everyday life, social media, but not our exits, the backstage quickly becomes centerstage and the other way around. As a result, our self, our identity, is solely bound to our own stage performance in the quest to be the drama queen or king of the day.

While to be or not to be is the question that unites us all on Facebook, Twitter and Instagram, the existential dispute over its final plot is fought out to the bitter end by the Jokers and their rehearsed scripts: For some, it's the US Intelligence Agency that planted COVID-19 in the heart of the Chinese mainland or a deliberate plot of China's leadership to cripple the Western economy. And we shouldn't forget about those who believe it's neither, but aliens from outer space that seek the destruction of humankind (don't panic because garlic or a warm shower apparently work wonders). Clearly, there is a grain of truth in the Joker's observation that it *only takes one bad day to reduce the sanest man alive to lunacy*.

But jokes aside, COVID-19 should not only teach us a lesson on how to enhance the resiliency of our national health infrastructures, but also how modern authoritarianism finds fertile ground amidst societies that do not offer any effective retreat or protection from the public gaze and hereby induce us to participate in the constant spectacle of real or manufactured crisis to reaffirm our position and identity in society. It is in this regard, that the increasing breadth and extent of social surveillance creates the perfect conditions for a cultural contestation of the demos on an existential level. Of course, this contestation can never be settled finitely and responsibly as long as we want to be part of the show. Till then, the Joker readily gives us advice: *Introduce a little bit of anarchy, upset the established order and everything becomes chaos. I'm an agent of chaos! Oh, and you know the thing about chaos? It's fair!*

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Nicolas Scholz

Storytelling and Authoritarianism

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Let There be Light

Alice Hong¹

11 April 2020

As a first-generation Chinese immigrant living in the United States, often times I found myself in an identity crisis. Especially in times like the outbreak of a pandemic, and a lot of people directed their rage and sentiment towards you because of your Chinese identity. COVID-19, the ongoing pandemic caught the world by surprise, and China was its first victim. At the time of the outbreak in China, many people were preparing to celebrate the Lunar New Year with their loved ones; however, this infectious disease broke people's daily routine and created a "new normal".

¹ Ms. Hong is an MIA candidate at the School of International Affairs at Penn State University and the President of the Research Network for Law and International Affairs at Penn State. Her interests include International Development and International Relations. She has been involved with various campaigns and conferences related to the UN Sustainable Development Goals and applies those experiences to her research.

The only thing I heard in the early stage of the outbreak in China was the little information I could get from my family there; of the quarantine and the measures the government is taking trying to contain it. However, the mix of lies and exaggeration made it hard to retrieve truthful information about how infectious this disease is. I tried to ask my parents in early January, when they just returned back to China from the US, what their plan was for Lunar New Year. They told me about their travel plans visiting our family across the nation without knowing anything about the pandemic happening in Wuhan, China. It wasn't long after they reached their first destination, in Hainan province that they started to hear about person-to-person transmission of COVID-19 though Wuhan had a city-wide lockdown there are still risks of people travelling before the lockdown. My parents informed me immediately about the outbreak and asked me to be prepared since there are a lot of travelers coming to the US each year.

To be honest, I wasn't so much afraid of the epidemic itself, but was in fear about the anti-Chinese sentiment that might emerge from this epidemic. The first gesture from the international community in response to the COVID-19 outbreak in China was to close their borders to Chinese citizens and foreign citizens who had been to China in the past 14 days. This seemingly reasonable gesture made me even more scared about what will happen and what the effects might be on Chinese people overseas. It was a dark and helpless time in life that I wish I can do something for my family in China to bring them hope and calm their fear.

It wasn't long until COVID-19 made its way to the United States and had been spreading ever since, but a big portion of the population were treating it like a flu. At that time, I started to prepare for a potential outbreak here like it did in China and was wearing a face mask if I knew I was going to be in close contact with someone. There were a lot of times I walked on the street and people would walk pass by me, stare at me, cough a little and started laughing. I ignored it. One day at work, my boss asked me to remove my face mask when I am talking to people and I explained to her why I was wearing one. She laughed at me and said, "Only Chinese people will get it though, and it's just a bad flu, it's not a big deal". I did not argue with her and just simply did what she asked me to. When I heard that comment, I

had mixed feelings inside me that were too hard for me to express.

I wasn't angry, I was disappointed.

I was disappointed at my inability to educate them on how serious this epidemic is, and also how infectious it can be. I was disappointed about the sentiment towards an innocent community that is going through as much of a hard time as anyone else who are trying to contain the outbreak. I was disappointed by the international response as different nations all closed its borders with China, and it seemed like they were rather singling China out than help them to fight the virus. I was proud that China had strict rules for travel and had put in their best efforts to contain the global spread of the Coronavirus.

I was scared.

I was scared that this virus will spread quicker than anyone would know, and we would have a similar "new normal" life here like China did. I was scared that this will affect my graduation and employment if everything shuts down. "Will I still graduate?" "What about my job interviews?" "Can I still find a job?". I was drowned in uncertainty and couldn't find the light to light up my hope. I was scared that the anti-Chinese sentiment would affect my life, and I was worried about my safety when going out.

As the spread of the virus become more serious in late February early March, we cancelled my church trip for Spring break and decided to stay put. Also, schools have moved to online classes and non-essential business were closed down. People started to get a sense of urgency since the pandemic had paralyzed the economy, yet the only thing this pandemic did not paralyze are the Xenophobic comments and anti-Chinese sentiments in the society. Many referred to this virus as the "Chinese virus". I really don't like that term, since an epidemic does not have the idea of national borders, nor have a way to stop itself from travelling around the world. Hate crimes towards the Asian community in the US started to rise during this time, and the Chinese community are targeted in many ways. The Coronavirus became an invisible enemy for the world, yet

instead of working together to combat the disease, nations are diverging themselves from each other.

When school was moved online, we had immense support from the school community. Faculty and staff were trying their best to accommodate and arrange housing for international students who are stuck on campus. Professors are constantly check on their students to make sure everyone is doing fine. Students have adjusted to their new routine and started to enjoy their “virtual” life. Thanks to technological advancement, we were able to function without meeting in person.

I felt safe and relieved.

I felt safe that officials are doing their best to protect the staff and students. I felt relieved that these measures can effectively contain the spread of COVID-19 in our community. At the same time, I was also impressed by how quickly the schools across the nation responded to the crisis. I respect the frontline doctors who are so selflessly caring for those in need. The words of kindness and support from the school community made me no longer afraid to stand up to those who have misunderstandings towards Chinese people and had made it a goal to educate them on COVID-19. This outbreak reflects the uttermost humanity and the caring nature of mankind. Though there are still anti-Chinese sentiment going on, and might last for a while, I still believe there is light in the darkest of times

I see this outbreak as a lesson, a lesson for the international community to be prepared for such times, and also a moral lesson for those who were focusing on blaming China for it instead of taking effective measures to protect themselves. It is also a lesson for the Chinese community in the United States that they should not be afraid of such sentiment, but instead should educate people on the difference in culture as well as regimes that led to different types of response in the nation. Ultimately, this outbreak is a lesson for everyone to let there be light in the darkest times.



B. Proceedings

Conference-Roundtable—Coronavirus and International Affairs: Interventions

Interventions are short essays and other writings prepared by Conference-Roundtable participants and contributors in the lead up to the event. They form an integral part of the Conference-RoundTable proceedings and were written with two principal objectives. The first was to develop a contemporaneous record of various aspects of the pandemic at a time when COVID-19's scope and effects were only becoming known. They were, in this sense, meant to bear witness to the events as they unfolded. The second was to supplement the oral presentations and discussions during the Roundtable event. The interventions were to provide foundational materials and background to inform the final discussions held during the course of the April 2020 videoconference portion of the Conference Roundtable events.

Three Countries, One Feeling and the COVID-2019 Crisis

Yuri González Hernández¹

7 April 2020

Human beings have experienced new challenges every day, and that has allowed us to evolve. I was asked to speak briefly to the current state of the challenge of COVID-19 in three countries of Latin America to keep their people a life and as safe as they can.

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One of the reasons is to plead of the awareness of this person. Another reason is that I have really good friends from those countries and I'm suffering from the spread of this virus in their home countries as in my home country. But the main reason to talk about this is to make the people remember that this is time to take care of each other and the people around us, because life is all that we have. Each human being must respect the right to be a life and health.

In this report, I'm going to talk about the situation in Panama, Peru, and Cuba. There is not my intention to compare the quality of the health care system but I'm going to make a comparison between those countries referring to the evolution and spread of the COVID-2019. Let's analyze the spread of these three countries.

At the beginning of March, the three countries didn't have any reported cases. From this point I intend to progress in the evolution of this critical situation in alternatives days, involving the mentioned countries.

On March 6th this apparent stability changed bringing for the people of Peru the first reported case and the start point of the unstoppable chain of infections. The first case turned out to be a Peruvian citizen who had recently visited some European countries.²

Panama for its part began to deal with this lethal challenge on March 9th. The Panamanian government were being taking different preventive measures to assure the population. One of those was to have control over each person arriving just from countries with high numbers of cases like China and Italy. However, the first case in Panama came from Spain and this person wasn't subject to the health systems control.³

² "Ministra Hinojosa pidió tener confianza en el Sistema de Salud tras confirmarse primer caso de coronavirus en Perú" (6 March 2020); available [<https://www.gob.pe/institucion/minsa/noticias/86983-ministra-hinojosa-pidio-tener-confianza-en-el-sistema-de-salud-tras-confirmarse-primer-caso-de-coronavirus-en-peru>].

³ Aleida Salmaniego, "Mujer de 40 años es el primer caso de coronavirus en el país," *La Prensa* (10 March 2020); available

Cuba on March 11th faced the tree first cases of COVID-19, those persons were tourists that arrived from Lombardy, which at that time was the region of Italy with the highest number of infections. In march 12th were reported the first Cuban citizen infected which was been on Italy previously with his wife who was tested negative.⁴

To March 11th, Peru already counted with 11 positives COVID-19 cases. To this, the Peruvian government establishes that people from Italy, Spain, France and, China will be isolated for 14 days, from the moment of departure from the aforementioned countries. This, due to the rise of coronavirus-infected in the country.⁵

Panama, just four days after having the first reported case, already had 36 positive cases for COVID-19, 33 Panamanians and three foreigners. The government with the fast spread prohibits the entry of flights from Europe and take other preventives measures like activities and social events suspended, temporarily suspend boarding and disembarking of cruise ships and Implement the placement of tents for care in areas with the highest influx of patients and thus avoid the accumulation of people in the areas where the greatest number of cases of COVID-19 have occurred.⁶

In March 16th, Peru has 86 cases tested positives for COVID-19. To avoid the spread of the virus, the Ministry of Health recommends to the population, in the context of the health emergency arranged by the Government, home isolation

[<https://www.prensa.com/impresa/panorama/mujer-de-40-anos-es-el-primer-caso-de-coronavirus-en-el-pais/>].

⁴ “Pandemia de COVID-19 en Cuba;” available [https://es.wikipedia.org/wiki/Pandemia_de_enfermedad_por_coronavirus_de_2020_en_Cuba].

⁵ “Gobierno anuncia aislamiento preventivo a viajeros provenientes de China, España, Francia e Italia” (11 March 2020); available [<https://www.gob.pe/institucion/minsa/noticias/108693-gobierno-anuncia-aislamiento-preventivo-a-viajeros-provenientes-de-china-espana-francia-e-italia>].

⁶ Gobierno de Panamá, COMUNICADO N° 7 (13 March 2020); available [<http://www.minsa.gob.pa/noticia/comunicado-ndeg-7>].

(quarantine) for 14 days. The Peruvian government the same day it is decreed in National Emergency for 15 days.⁷

On the same date, Panama has reported 69 COVID-19 cases with one fatal victim and implements the "Protégete Panama" sanitary hygiene plan, which consists of the application of measures, which were called rings, to confront the situation the country is facing before COVID-19.⁸

In Cuba, the sanitary authorities reported on March 20th that had been rise 21 cases positives for COVID-19. On this date the Cuban government announced the closure of the borders, understanding the serious consequences that would continue to receive foreign visitors. As it was supposed the first local transmission event happened, derivate in the following days, four relatives and a friend of a Cuban citizen infected, were positive for the coronavirus.⁹

Peru on March 21th had 318 cases tested positives and 5 deaths reported for COVID-19. Five days later the country counted 580 cases tested positives and 9 deaths.¹⁰

For the day March 23th Panama reported 345 confirmed cases and 6 deaths. With this increasing situation, the Panamanian government keeps taking measures like curfew and dry law making sure to enforce the most number of people

⁷ Government of Perú "Minsa: Casos confirmados por coronavirus COVID-19 ascienden a 86" (16 March 2020); available [<https://www.gob.pe/institucion/minsa/noticias/108958-comunicado-oficial-de-prensa-coronavirus-n-13>].

⁸ Government of Panama, "Los seis anillos del "Plan Protégete Panamá" (24 March 2020); available [<http://www.minsa.gob.pa/noticia/los-seis-anillos-del-plan-protegete-panama>].

⁹ "Cuba: primer caso de transmisión local del coronavirus" (30 March 2020); available [<https://oncubanews.com/cuba/cuba-primer-evento-de-transmission-local-del-coronavirus/>].

¹⁰ Government of Perú, "Minsa: Casos confirmados por coronavirus COVID-19 son 580 en Perú (Comunicado N° 34)" (26 March 2020); available [<https://www.gob.pe/institucion/minsa/noticias/111476-minsa-casos-confirmados-por-coronavirus-covid-19-son-580-en-peru-comunicado-n-34>].

insolated.¹¹ What is interesting is that all governments sought to apply similar measures—quarantines of some severity or other but largely similar to what had been applied in other states. That of the government of Panamá was typical:

La medida, apegada al plan “Protégete Panamá”, se establece para salvaguardar la paz y seguridad de toda la población a lo largo y ancho del país y se hace de forma progresiva como una medida previa a establecer una cuarentena nacional. De igual forma, se establece que la jornada laboral en el sector público será de 8:00 a.m. a 12:00 m.d; exceptuando los servidores que, por la naturaleza, de sus funciones deban mantenerse operativos.¹²

Despite the measures of each country take for avoiding the spread of the virus it was not sufficient. The data show that for the date March 31st, the number of cases had increased considerably as show below:

- Cuba 212 tested positive cases, 6 deaths.
- Peru 1 065 tested positive cases, 30 deaths.
- Panama 1 181 tested positive cases, 30 deaths.

Sadly, any of this government have the immediate solution in their hands. The solution most begins in the awareness of each citizen of these countries that even though the number of cases is going up, they don't understand that the virus evolution work through person to person and each time that they go out there is a high percentage of spread it.

Ever since the human being began to organize in society, he has ensured the safety of the places he considers his territories. As it is difficult to have consensus on the decisions to be taken in a society, society allowed to have people who direct those decisions. Since the beginning of this pandemic, we have

¹¹ Government of Panamá, “COMUNICADO No.25 Ministerio de Salud anuncia nuevas medidas de movilidad para combatir la propagación del COVID-19” (23 March 2020); available [http://www.minsa.gob.pa/noticia/comunicado-no25-ministerio-de-salud-anuncia-nuevas-medidas-de-movilidad-para-combatir-la].

¹² Ibid.

left all the responsibility in the governments without thinking that we have the greatest burden ourselves.

IF each person decided to appeal to their sense of humanity and assumed command of their territory to protect their health, it could be said that once we all agreed, we did something to safeguard the common good more precious, "**The life**".

* * *

B. Proceedings

Conference-Roundtable—Coronavirus and International Affairs: Interventions

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Trying to Find Toilet Paper in the Age of Coronavirus: The Role of Consumer Goods and Global Supply Chain Solutions During the Pandemic

Bethany Salgado¹
15 April 2020

Pasta, rice, and peanut butter may be among the pantry staples many would think to stock up on in preparation for being house-bound in a pandemic, yet goods such as toilet paper and sanitation products have also become a hard-to-find commodity in this time of panic hoarding. As the United States approached the start of its now month-long quarantine (enforced uniquely at the private, local, and state levels), grocery stores and their paper-goods suppliers were hit with a

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wave of un-forecasted demand. While some find it odd that Americans are panicked with the idea of running out of bath tissue, psychologists say that it is a logical source of comfort.² And increasingly since coronavirus has spread beyond China's borders, places like Canada, Australia, and the United Kingdom are also seeing a run on bathroom essentials. It has necessitated strict limits on customer purchases of toilet paper around the world to curtail price gouging,³ and in some cases, even security guard patrols to ensure safe customer behavior when shopping.³ Whether this hoarding behavior is driven by a desire to overprepare in a time of great uncertainty or another psychological instinct, it has led to strained supply chains desperately striving to keep up with consumer demand.

Consumer goods companies in the age of coronavirus face new challenges to the way in which they forecast demand and shift production planning to meet consumer need during an evolving crisis. Experts have pointed to the importance of separating panic demand from normal demand.⁴ According to IESE Business School professor Jaume Ribera, the bullwhip effect resulting from panic buying can create increasing instability the further up the supply chain one looks.⁵ Therefore, it is crucial that for long-term planning, companies be wary of overcorrecting to meet panic demand rather than taking measured steps to account for the lull that will one day return the industry to normal demand patterns. With many stores shuttered in the name of social distancing, e-commerce has

² Kluger, Jeffrey. "In the Wake of the Coronavirus, Here's Why Americans Are Hoarding Toilet Paper". *Time* (14 March 2020); available [<https://time.com/5803273/hoarding-toilet-paper/>].

³ Lufkin, Bryan. "Amid the coronavirus outbreak, people are flocking to supermarkets worldwide –but are they simply preparing, or irrationally panicking?" *BBC* (4 March 2020); available [<https://www.bbc.com/worklife/article/20200304-coronavirus-covid-19-update-why-people-are-stockpiling>].

⁴ Andrew, Scottie. "The psychology behind why toilet paper, of all things, is the latest coronavirus panic buy." *CNN* (9 March 2020); available [<https://www.cnn.com/2020/03/09/health/toilet-paper-shortages-novel-coronavirus-trnd/index.html>].

⁵ Ribera, Jaume. "Lessons From Covid-19: How To Protect Your Supply Chains During The Crisis." *Forbes* (3 Apr. 2020); available [<https://www.forbes.com/sites/iese/2020/04/03/lessons-from-covid-19-how-to-protect-your-supply-chains-during-the-crisis/#43dd10a1ba3b>].

come to the rescue. For those retailers still open, though, poor production planning by their consumer goods suppliers could pose a challenge to their ability to keep in-person shopping available. According to Occupational Safety and Health Administration regulations, public stores must supply goods such as toilet paper and hand cleaners for health and sanitation purposes within their facilities in order to even remain open for business.⁶ Thus consumer goods companies must strategically realign their production capacity to ensure that retailers have adequate business-grade sanitation products to meet these regulatory standards or risk failing retailers providing citizens crucial access to supplies in the midst of this pandemic.

The second challenge consumer goods companies face in the wake of coronavirus is maintaining the continuity of operations to service customers in need of basic household essentials. In the end, there is only so much inventory that these businesses can provide at one time, forcing companies to allocate a limited supply amongst countless desperate grocery and retail stores. Yet quick action has helped companies to lean on their globalized supply chains and flexible working arrangements to keep operations going during this pandemic. Most organizations across industries turned to remote work when possible and have intensified their facilities' sanitation, particularly where employees need to perform their job functions on site; however, some companies face strict criticism for the ramp-up in employee hours at distribution centers and warehouses as well as alleged insufficient protections for workforce safety due to inadequate supplies of personal protective equipment(PPE).⁷ While worker safety is of the utmost importance during this pandemic, critical jobs in transportation, warehouse management, pharmaceutical production, and consumer goods to name a few must be maintained in order to ensure key medical, food, and sanitation supplies get to those in need. The fundamental way in which supply chains will be able to survive this pivotal stress test is by

⁶ "Restrooms and Sanitation Requirements." OSHA.; available [https://www.osha.gov/SLTC/restrooms_sanitation/index.html].

⁷ Davies, Pascale. "French Court Orders Amazon to Only Deliver Essential Items Over Coronavirus Safety Fears." *Forbes* (14 Apr. 2020.); available [<https://www.forbes.com/sites/pascaledavies/2020/04/14/french-court-orders-amazon-to-only-deliver-essential-items-over-coronavirus-safety-fears/#4a07bbef133a+>].

leaning into their global networks to spread (and thereby minimize) risk across production sites and increase response capacity to volatile consumer demand.⁸

Ribera comments on preconceptions about coronavirus signaling “the end of just-in-time, lean manufacturing, and whether it marks an inevitable swing toward de-globalization.”⁹ He notes that it is impractical to unravel decades of global expansion of production chains. In addition to the unviable notion of moving offshored supply chain operations back to the country of their parent company’s legal domicile, crises like the coronavirus pandemic show the world why globalized supply chains are so important. The more diversified a supply chain’s production centers, the better a company is able to weather storms of all sorts. Prior crises have shown supply chain experts why single-source dependencies are a bad idea. When suppliers holding large market shares for a particular product are taken out of commission, companies can be left scrambling to find new sources for their product materials.¹⁰ This key vulnerability of consolidated sourcing speaks directly to the need for continuity of globalized supply chains, particularly in the midst of this pandemic.

Perhaps unexpectedly—yet quite logically—the consumer goods industry, and particularly those companies in the business of household essentials such as toilet paper, have been thrust into a key role during the coronavirus pandemic. Without these supply chains operating to meet the basic needs not just of consumers, but of fellow businesses that supply food and other basic commodities, we could see a far more pressing issue in keeping essential commercial services running amidst this widespread market shutdown. Despite varying criticisms of

⁸ Rice, Jr., James B. “Prepare Your Supply Chain for Coronavirus.” *Harvard Business Review* (27 Feb. 2020); available [<https://hbr.org/2020/02/prepare-your-supply-chain-for-coronavirus>].

⁹ Ribera, Jaume. “Lessons from Covid-19: How to Protect Your Supply Chains During The Crisis.” *Forbes* (3 Apr. 2020); available [<https://www.forbes.com/sites/iese/2020/04/03/lessons-from-covid-19-how-to-protect-your-supply-chains-during-the-crisis/#43dd10a1ba3b>].

¹⁰ Rice, Jr., James B. “Prepare Your Supply Chain for Coronavirus.” *Harvard Business Review* (27 Feb. 2020); available [<https://hbr.org/2020/02/prepare-your-supply-chain-for-coronavirus>].

how these supply chains have maintained operations while governments call for social distancing and extra health precautions given shortages on PPE, consumer products companies need to operate as optimally now as ever before. In order to meet the needs of a global populace during a worldwide pandemic, these businesses must utilize their multinational supply chains to their benefit. Risks such as facility shutdowns and slower throughput times due to smaller workforces may be best managed by relying on production chain partners around the world. As this pandemic runs its course, businesses must learn to adapt to changing import and export regulations, domestic commerce shutdowns, and shifting coronavirus epicenters, from which globalization will prove an asset rather than an obstacle.

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Interventions

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Trying to Find Toilet Paper

C. Essays

COVID-19—A ‘Hamilton Moment’ for the European Union?

Birgit Spiesshofer¹

1. COVID-19 in Europe.

The crisis uncovered the breaking points of globalization. The distortions triggered by the Corona pandemic were manifested in the form of interrupted supply chains and a lack of vital medical equipment, protective gear and medicines that were no longer available because their production had been relocated outside Europe, partly for cost reasons, partly because foreign investment regulation, which reflected the liberal European economic order, had allowed very generous acquisitions of strategically important companies by foreign investors. The limited reliability of supply and international transport based on contractual guarantees became manifest. The confidence in global supply chains that operate efficiently even in an emergency was lost. China first, America first - and Europe left without a partner.

A survey by the European Council on Foreign Relations (ECFR), published in June 2020, ("Survey") revealed how COVID-19 has changed the European public's view on the world and, in particular, on the role of the European Union and its Member States.² The ECFR commissioned a poll of over 11,000 citizens in nine countries across the European Union (EU),

¹ Birgit Spiesshofer is adjunct professor at the University of Bremen for International Economic Law and Business Ethics and Of Counsel at Dentons Europe LLP, Berlin.

² See Ivan Krastev and Mark Leonard, "Europe's pandemic politics: How the virus has changed the public's worldview," ECFR/326 (June 2020) (survey); available [https://www.ecfr.eu/page/-/europes_pandemic_politics_how_the_virus_has_changed_the_publics_worldview.pdf, last accessed 20 September 2020].

covering more than two-thirds of the EU's population and GDP. The poll generated partly surprising results.

On the one hand, a significant number of people in all surveyed Member States were of the opinion that the EU responded poorly to the crisis or was even irrelevant.³ This disappointment with the EU raises the question whether the distribution of legislative and administrative competences and powers between the EU and the Member States in the health sector is adequate or requires improvement.⁴

The Survey revealed, however, also that the pandemic has dramatically changed how the Europeans' see the world beyond Europe, in particular the U.S.A. and China, with fundamental repercussions on the view of the role and function of the EU and the Member States in a world of blocs and regions. The COVID-19 crisis triggered - what seems a paradox at first sight - both a "European moment" and a "nationalist moment".⁵

2. The EU and the Member States - distribution of competences and powers.

The Survey revealed that a significant number of EU citizens considered the EU's crisis management to be poor or even irrelevant. This reproach is at least partly unjustified as the EU's competences in the health care sector are rather limited. According to Art. 5 and 6 TFEU (Treaty on the Functioning of the European Union)⁶, public health care falls within the area of shared competences and of measures for coordination and support, in which the principle of subsidiarity (Art. 5 (3) TFEU) applies. Subsidiarity means that the EU should only act if and insofar as action by the Union is more effective than action by the Member States because of its scale or effects. A centralized intervention by the EU in the beginning of the Corona crisis when rapid, direct and coercive actions on the ground were required would not have been feasible or even useful as the EU did not have the administrative set-up nor means for an EU-wide emergency intervention. In addition, the legal and administrative organization of the national public health systems is quite different, some are federal others centralized, some states have a public health care system others follow a

³ See ECFR/326 (June 2020) (survey), supra n. 2, p. 9.

⁴ See 2. below.

⁵ See Section 3 of this essay. below.

⁶ OJ EU C326 of 26 October 2012, p. 1.

private or public-private approach.⁷ Thus the Member States were the first port of call and primarily responsible, as they had the appropriate means for immediate action and coercion.

The criticism is, however, justified insofar as the EU was hit totally unprepared and seemed to be paralysed. There was no EU-wide emergency plan for such a crisis and the EU's coordination and support mandate would have allowed for or even required a more intensive engagement, e.g. concerning the procurement of medical equipment and protective gear or the optimal utilization of the available intensive care places in Europe, so that cross-border assistance is not only based on bilateral agreements between individual Member States. The EU has to play a central role, however, with regard to the economic, political and social effects of the crisis which can only be overcome through concerted action by all European institutions in cooperation with the Member States and international organizations.⁸

3. *How COVID-19 has changed the European public's worldview.*

The ECFR Survey raised the question how the virus has changed the European public's worldview, in particular concerning the U.S. and China, and, with regard to the EU: did it restrengthen public support for the Member States or rather push towards the United States of Europe?

Concerning the world beyond Europe the Survey revealed that the Europeans' faith in the traditional transatlantic relations between Europe and the U.S.A. which were considered a bedrock in former times was shaken not only because of the U.S. president's 'America first' politics and unfriendly acts against the European Union. The U.S.A. also lost its image as a role model and leader of the Western world because of the American reaction to the pandemic which was considered inadequate and irresponsible from a European perspective.⁹

⁷ The UK, e.g., has a National Health Service whereas Germany has public and private health insurance combined with public health authorities.

⁸ See the Programme of Germany's Presidency of the Council of the EU 2020 'Together for Europe's Recovery'; available [<https://www.eu2020.de/eu2020-en/program>] (last accessed 20 September 2020).

⁹ See Survey (Fn. 2), p. 13 ff.

At the same time the Europeans have become skeptical concerning the future of their relationship with China. The pandemic and China's Hongkong politics revealed the authoritarian face. China not only tried to avert from its responsibility for the outbreak of the pandemic but also to sow the seeds of discord between European states.¹⁰

Due to COVID-19 and other global events such as the global financial crisis, the refugee crisis, and the climate emergency Europeans have, however, also reassessed the purpose and role of the EU. The biggest group of citizens surveyed (42 %) tends to believe that the twenty-first century will be a world of blocs and regions and Europe's relevance will depend on the EU's capacity to act together. The EU is no longer a project motivated primarily by ideas and values but a community of fate.¹¹ Does this mean that we are moving towards the United States of Europe?

4. The European Recovery Fund - a 'Hamilton moment'?

When the EU leaders agreed in July 2020 to establish a 750 billion EUR Next Generation EU Recovery Fund¹², allowing the EU Commission for the first time to raise money in the capital markets for all Member States, this was celebrated as the 'Hamilton moment' of the EU. Alexander Hamilton was a former U.S. Secretary of Treasury and set a milestone for the creation of the U.S.A. by consolidating the states' debt into U.S. Treasury debt.¹³ The Survey suggests, however, that rather than a

¹⁰ See Survey (Fn. 2), p. 13 ff; Leonard/Krastev, "Europa, eine lieblose Zweckehe" (engl.: "Europe, a marriage of convenience without love"), *Tagesspiegel* 18.09.2020.

¹¹ ECFR/326 (June 2020) (survey), supra. n. 2, p. 16 ff.

¹² European Commission, "Recovery Plan for Europe," available [https://ec.europa.eu/info/strategy/recovery-plan-europe_en#nextgenerationeu] (last accessed 2 December 2020) ("It will help repair the immediate economic and social damage brought about by the coronavirus pandemic. Post-COVID-19 Europe will be greener, more digital, more resilient and better fit for the current and forthcoming challenges.").

¹³ Olaf Scholz, "Jemand muss vorangehen," *Zeit Online* (20 May 2020); available [https://www.zeit.de/2020/22/olaf-scholz-europaeische-union-reform-vereinigte-staaten?] (last accessed 3 December 2020). Cf. "How Alexander Hamilton Tackled the National Debt," *Smithsonian Magazine Online* (19 April 2017); available [https://www.smithsonianmag.com/sponsored/alexander-hamilton-debt-national-bank-two-parties-1789-american-history-great-courses-plus-180962954/]; and Andrew T. Hill, "The First Bank of the United

'Hamilton moment' of proto-federalization we see a 'Milward moment' according to Alan S. Milward, *The European Rescue of the Nation-State*,¹⁴ i.e. a burgeoning consensus on the necessity of the EU as a tool to preserve and empower the nation state searching for protection through joint European politics in a world of blocs and regions. The Survey shows that the roots for this new pro-Europeanism do not lie primarily in a desire for more European institution-building and bureaucracy nor in joint ideals and values but rather in deeper anxiety to lose control and to become casualties in a Sino-American confrontation.¹⁵ The pandemic reenforced the realistic insight that the EU is without alternative for continental Europe. The EU Recovery Fund is designed not only to mitigate the shocks of the pandemic but also to finance digital development and the Green New Deal thus functioning as a transformation accelerator towards a more sustainable Europe.¹⁶



States," Federal Reserve History, available [https://www.federalreservehistory.org/essays/first-bank-of-the-us] (last accessed 3 December 2020).

¹⁴ University of California Press, 1993.

¹⁵ See ECFR/326 (June 2020) (survey), supra n. 2, p. 20 f.

¹⁶ European Commission, "Recovery Plan for Europe," available [https://ec.europa.eu/info/strategy/recovery-plan-europe_en#nextgenerationeu] (last accessed 2 December 2020) ("The aim is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions").

C. Essays

School's Out: How College Succumbed to COVID-19

Davis A. Westbrook¹

While the full content of the postwar American notion of “college” is difficult to recapture, we can date the demise of the institution to the coronavirus pandemic of 2020. Originating in China, the disease, also called Covid-19, caused by the virus SARS CoV-2, had spread to the US shortly after the new year. There was no vaccine, and even reliable testing was in short supply. Moreover, the virus could be spread by contact, or by asymptomatic persons. Health officials, with increasing stridency, had nothing better to offer than physical separation from other persons who just might be carriers. “Six feet” (two meters) of separation was said to be sufficient. People were urged to practice “social distance” and “self-quarantine.”

The college experience – in classrooms, dormitories, eating halls, sports facilities and so forth – involved close proximity, and colleges were famous as “petri dishes” (a vessel used for the cultivation of microorganisms). By March of 2020, colleges and universities across the country closed their doors, and sent students home, or at least elsewhere.

Like educational institutions today, a key function of college was the accreditation of students, for the job market or further training. Students needed to finish their semesters. Conversely, few colleges were in a position, and none were inclined, to return tuition fees to students. It bears remembering that colleges, even second-rate institutions, were generally very expensive. An elaborate system of long-term

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debt financing meant that even Americans of modest means could borrow enormous sums to pay for the college years. So, colleges were forced to attempt to keep operating, even without students.

The obvious “solution,” of course, was to digitize education in general. As difficult as it is to believe today, the vast majority of professors had never taught digitally, at a distance, or asynchronously. The causes were institutional and ideological rather than technical: the personal computer was about two human generations old; mobile phones (which, despite the name, had substantial digital capacity) were almost a generation old. Digital instruction was not entirely new, but in colleges instruction was overwhelmingly delivered live, in person. By contemporary standards, the enterprise was shockingly labor intensive. The professoriate had never been so large, and of course has not since. Students were actually compelled to be physically on site at specified times. It was a very different world. Perhaps the closest analogue in current practice would be the tutorial instruction we and our peer institutions offer to members of privileged families and a smattering of prodigies.

In 2020, digital instruction was greeted by professors with enthusiasm that, in hindsight, seems remarkable. At least that spring, there was the incontrovertible fact of the pandemic. It would be stretching the point to recall the excitement that greeted the outbreak of the Civil War, but there was a somewhat similar and pervasive sense of crisis, and many people had an overwhelming desire to do something, perhaps in part due to the fact of being physically displaced from their places of work and in some cases residence. Be that as it may, the academic world, instructors and students, rather cheerfully converted teaching to digital formats in a matter of weeks.

As should have been obvious at the time, there was no going back. Too many forces were aligned, although the relations were complex. Many in the university were technology enthusiasts. The turn to technology offered the opportunity for sales, as always, and those who demurred could be mocked as Luddites. What were then called IT (information technology) professionals, for a brief while, gained long sought-after status. More deeply, administrators were happy to cut costs. (As amply recounted elsewhere, over the preceding generation, professional administrators had replaced teaching

faculty as the dominant figures in education.). Surely a professor did not need to offer the same course, for pay, over and over?

The institutional consequences of digitizing instruction were predictable enough. As in other digital industries, scalability, first mover advantages, network effects, and above all brand competition quickly led to the consolidation of what was then called, without irony, “higher” education. Thousands of educational institutions were closed outright. The surviving institutions may be grouped into several broad classes, comprising essentially the contemporary educational landscape.

Most importantly, with the founding of Assess/Success and its few competitors, “ordinary” education became digital and distanced. As you have no doubt read, the vast majority of American young people had, then as now, trivial means yet needed some form of “degree” to have any hope of getting a job. Such students no longer “went” to college; they logged on. Entertaining professors lectured; there were occasional teleconferences; quizzes were given and exercises done, until sufficient points were amassed to survive review by an HR department somewhere. This, at least, was the rather modest intention. Modest or not, however, the failure rate was and is appalling, as you may know.

Colleges survived as physical institutions, with buildings and students in them, in two basic ways, both quite limited and with which you are familiar. First, as already suggested, elite institutions quickly realized that they were about “selectivity,” i.e., exclusion, not scalability. The point, then, was to provide an “experience” as different from the digital as possible. The mode of instruction shifted from classroom teaching or seminar participation to a combination of tutorial cajoling and social suasion reminiscent of Oxbridge in the glory years. What had been privileged comfort became unabashed luxury as living quarters were upgraded, top flight chefs hired, dedicated transport and vacation properties were acquired, and the like.

Children of the dwindling upper middle class were often sent to the remaining universities, generally sponsored by state governments, with marquee sports programs. The point of being physically at such an institution was frankly social, to build networks useful later in life, and perhaps to find a mate. In a sense, all degrees became what was once derided, in sexist fashion, as MRS degrees. Instruction generally was outsourced

to commercial vendors. Some of the largest institutions retained in-house capacity to provide digital instruction, with a small stable of star professors backed by an army of contract employees, for student hand-holding and perhaps a little tutoring. And that is pretty much the situation today.

Almost immediately, critics noticed that student success at digital learning, whether on their own or under the aegis of Sports U., replicated the patterns of privilege and ethnicity familiar from standardized testing. Defenders of the new status quo were quick to urge the objectivity of the digital formats, and that, say what you will, the price of education had fallen drastically. There were mutterings and occasional litigation about racism and other forms of bias, as remains the case today. *Plus ça change . . .*

The institution of college liberal arts education would not have succumbed so quickly to coronavirus if it did not have a preexisting condition. As noted, the takeover of the institution by administrative professionals had been completed prior to the pandemic. In consequence, education was redefined as a process of transfer from the institution to its clientele, a transfer which had to be quantifiably accounted for, financially but also via “learning outcomes” and the like. Prior to that, education had been understood, somewhat romantically perhaps, as a process of emulation (*Bildung*) of the figure of the professor. (This may sound risible when stated baldly, but what, then, are you tutors?) In contrast to education as emulation, education as transfer is easily digitizable, and pretty much accounts for itself. Quantitative and absolutely “fair” assessment of explicit objectives can be functionally entailed rather than demanded of a recalcitrant and unskilled faculty.

For over a generation, administrators thought one way, essentially in terms of accounting, and faculty thought another way, at least the better ones did. For a long time, there was something of a stalemate. Administrators demanded accounting, and faculty complied, in fine Soviet fashion, superficially. Actual instruction in classes and seminars, however, remained much as it always had. COVID-19 broke the stalemate and gave the victory to the administrators. Faculty voluntarily digitized their courses, shaping content, projection, student participation, everything accordingly. Thus, the move to digitization for a short while – no more than ten years, in most cases far less – perfected the goals of university administrations.

The administration's victory, however, was pyrrhic. As already suggested, the problem was scalability. When colleges closed, administrators, too, were out of jobs.

A few brave souls maintained that something was lost, that digital education failed to do something important that college, at its best, had done. But it was hard to articulate what this important thing was, precisely, and somebody from industry, backed by administrators and technicians, was always around to explain how this or that product did, or would soon do, that important thing just fine, and at low cost. And besides, colleges had been places of privilege, and that was looked down upon at the time, again in ways that are hard to recapture. In short, the voices of dissent were shouted down as Luddites and immoral ones at that. All this, even though college at the turn of the 21st century might have been the closest to middle class democracy this country has ever seen, or, from this vantage, is likely to. So, just as the end of World War II and the GI Bill gave birth to the college era, the coronavirus pandemic can be said to be the founding moment for our own educational regime, such as it is. Enjoy your dessert, and your place in life, and thank you.



C. Essays

COVID-19—La Situación en Cuba

Yuri González Hernández ¹

Cuba País que reúne un innumerable índice de raíces culturales ha formado una sociedad con una idiosincrasia particular por su empatía con otras sociedades. Sin embargo, ha sido objeto del establecimiento y de teorías socio políticas las cuales han mostrados resultados tanto positivos como negativos. Del lado positivo demuestra que el Sistema político de Cuba ha sabido beneficiar a sus habitantes desde el punto de vista social. Lo cual se manifiesta en el alto índice de seguridad que sienten tanto habitantes como visitantes en la isla, dando al traste con muchos otros beneficios en sectores como el de la salud y la educación.

Lo que hace que todos estos logros se vean opacados es el factor económico. El cual no demuestra desde la concepción del Sistema político cubano como Estado Socialista, la voluntad real de sentar bases económicas firmes capaces de dar sostenibilidad a los citados beneficios sociales y a su vez impulsar el Desarrollo del país.

Como es conocido desde 1990 Cuba ha estado buscando la manera de impulsar su economía teniendo como principal Fuente el turismo lo cual a aportado beneficios económicos dado a que es un país con un clima cálido y destinos turísticos atractivos.

El 2020 rompiendo todo tipo de expectativas se torno desfavorable para todos los países del mundo. Pues lo que

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parecía una epidemia con la cual lidiaba China desencadenó una crisis mundial. Esto hizo que la economía en muchos países haya colapsado abruptamente.

Cuba en medio de esta situación se ve seriamente afectada pues es precisamente el turismo una de sus fuentes de ingreso y ha sido la más afectadas a nivel mundial.

Introducción del Virus en la Isla.

Al igual que muchos gobiernos en diferentes países principalmente europeos, el estado cubano no asumió seriamente el peligro potencial de ver desatada una pandemia en su territorio.

Muestra ello es que agencias turoperadoras cubanas, así como autoridades en la isla continuaron promoviendo a Cuba como destino turístico al tiempo en que se difundían las noticias de que el virus había trascendido las fronteras Chinas y estaba afectando países europeos. Cabe destacar que gran numero de turistas que visitan la isla provienen de ese continente. Precisamente los primeros casos reportados con COVID en Cuba, fueron tres turistas provenientes de Lombardi, Italia, la cual ha sido una de las zonas mas afectadas por el índice de casos reportados e índice de fallecidos a causa del virus. Otra decisión, que aunque se haya tenido en cuenta el factor humano no dejó de ser riesgosa, fue acoger al crucero británico que tenia a bordo casos de COVID. En este caso la tripulación solo fue trasladada al aeropuerto, pero el personal cubano encargado de estas funciones no contó con las medidas de protección adecuadas debido a que para la fecha se tenia poco conocimiento del virus. Sobre todo, en Cuba donde la información se limita a los medios de difusión nacionales.

Si bien los primeros casos reportados por COVID-19 en Cuba en fecha 11 de marzo eran extranjeros, ya el 12 de marzo se estaba reportando el primer caso de un nacional proveniente de otro país latinoamericano (Bolivia), quien había estado recientemente en Italia. Sin embargo, no fue hasta el 24 de marzo que el estado cubano tomara la decisión de cerrar las fronteras y tomar las medidas necesarias para evitar que los cubanos que

en días posteriores regresaran a la isla infectaran a sus familiares y resto de la población.

Se puede decir que a pesar de haber tomado la decisión de cerrar las fronteras de manera tardía fue efectiva. Cuba comenzó a desarrollar un protocolo de salud que permitió salvar muchos pacientes al tiempo en que en los laboratorios de la isla se comenzaron a analizar patrones del virus que permitieron tratar efectivamente a los pacientes que se fueron infectando palatinamente logrando un bajo índice de mortalidad, así como de pacientes graves. Aunque las estrategias adoptadas para frenar la curva no daban el resultado esperado, por lo cual tuvieron que tomar otras medidas como el cierre de las escuelas y algunos centros de trabajo.

EL turismo como elemento clave.

Lo que ha provocado esta pandemia, atenta contra todo pronóstico de Desarrollo económico. Para Cuba es un momento crítico debido a que había centrado gran parte del desarrollo de su economía en el turismo. Por otro lado, están esas personas que dentro de la isla habían desarrollado importante papel en función de los turistas. Me refiero a los emprendedores (trabajadores por cuenta propia)² que han basado su trabajo en servir a los visitantes extranjeros, tanto en el sector de la gastronomía (Paladares)³, así como los que desarrollan la artesanía (suvenir).

En este punto los emprendedores cubanos se encuentran enfrentando una situación realmente difícil, puesto que el mercado destino de estas personas es el turista foráneo, que además cuenta con el nivel económico para asumir la oferta en cuanto al precio de los productos que se ofrecen. El estado cubano a estado alentando a los nacionales a que disfruten de instalaciones hoteleras con el objetivo de que exista al menos turismo nacional. Pero la realidad es que el número que cubanos con la capacidad adquisitiva para disfrutar en instalaciones hoteleras cubanas es muy bajo. Por otra parte, muchos cubanos desde hace unos años han basado sus ingresos en el comercio minorista, me refiero a esas personas que tienen la posibilidad de viajar a otros países y llevar a la isla productos de primera

² Trabajadores por cuenta propia: Termino con el que denomina en Cuba a las personas con negocios privados.

³ Paladares: palabra del argot popular cubano utilizada para denominar a los restaurantes del sector no estatal.

necesidad. Lo cual fue anulado desde el 24 de marzo con el cierre de las fronteras. Para nadie es un secreto que los trabajadores del sector estatal en Cuba no reciben un salario que les permita disfrutar con sus familiares en una instalación turística.

Las consecuencias que a traído esta pandemia para Cuba ha afectado directamente a los sectores del trabajo por cuenta propia lo cual afectara directamente la expansión del sector no estatal, así como del sector estatal enfocado al turismo. Además, se ha visto reducida o prácticamente inexistente la inversión extranjera.

Los médicos internacionalistas cubanos

El estado cubano desde décadas atrás envía médicos a otras naciones. Lo cual es posible gracias a diferentes tratados internacionales que amparan el apoyo entre naciones con el fin de dar bienestar a sus habitantes. Cuba hasta el momento ha contado con un buen personal medico capaz de ofrecer servicios médicos gratuitos y con profesionales calificados.

El mundo ha enfrentado tanto desastres naturales como severas pandemias de las cuales me gustaría citar el terremoto ocurrido en Pakistán, así como la pandemia de Ebola sufrida en varios países africanos. A estas zonas fueron enviados médicos cubanos, así como de otras naciones. La diferencia radica en que los médicos cubanos a pesar de que los haya motivado el beneficio económico, el cual no compensa el riesgo que corren, ni el trabajo que realizan, tratan a los pacientes que atienden con el ánimo de darles mejoría a su estado de salud. Este humanismo es intrínseco debido a que tuvieron una formación medica basada en sanar personas mas allá del beneficio económico.

En medio de la crisis que vive el mundo debido a la pandemia. Desde el mes de marzo de 2020 Cuba ha enviado personal medico que ha ascendido a mas de 2000 a más de 15 países.

En países sobre todo europeos los médicos cubanos han tenido una gran aceptación. Por ejemplo, en Italia les han dado gran reconocimiento, pues fueron factor clave en el tratamiento de pacientes graves. Además del medicamento aplicado el cual fue creado en Cuba.

Puede que a pesar de que se critique que los médicos cubanos son objeto de explotación debido a que no son justamente compensados, la realidad es que a la causa a la que se deben, que es la de curar a personas con afecciones de salud, la han cumplido con resultados sobresalientes.

Por desgracia en estos tiempos no toda buena labor es bien recompensada pues precisamente muchos médicos que fueron enviados a estos países fueron infectados. Estos médicos indirectamente han sido causa de reinserción del COVID-19 en la isla a su regreso teniendo en cuenta el alto nivel infeccioso de este virus.

Tecnología Médica.

Ha diferencia de ha inicios de año, hoy se tiene mayor conocimiento acerca de las características metabólicas del virus. Es de dominio público que las consecuencias que provoca este virus no se deben a que provoque una enfermedad respiratoria, a pesar de que afecta los pulmones, es mas bien una enfermedad que ataca severamente nuestro Sistema inmunológico. Lo que diferencia el COVID-19 de otros virus con similares características es la rapidez con la que evoluciona en nuestro organismo además del alto nivel infeccioso.

Desde la década de los 80 se desarrollan en Cuba diferentes técnicas y estudios científicos para lograr combatir diferentes padecimientos. Cuba fue uno de los primeros países subdesarrollados en desarrollar una tecnología propia que le permitiera producir interferón. A partir del año 2007 Cuba comenzó a producir el medicamento llamado Interferón Alfa-2b recombinante. Este medicamento hace sido exitosamente utilizado para tratar pacientes con leucemia de células pilosas, melanoma maligno, linfoma folicular, sarcoma de Kaposi causado por el SIDA entre otros padecimientos asociados a enfermedades autoinmunes. Este medicamento también ha sido producido bajo el nombre comercial "*ChangHeber*" por la empresa mixta chino-cubana *Changchun Heber Biological Technology* ubicada en China.

El Interferón Alfa 2-b fue incluido en el diagnóstico y tratamiento al inicio de la pandemia, por la Comisión Nacional de Salud de China. La empresa ChangHerber ha incrementado su producción basado en la efectividad que ha tenido este medicamento en el tratamiento de personas infectadas con el

virus. Además, países como Italia, España y El Salvador se han mostrado interesados en comprar este medicamento para su uso en las personas infectadas en sus territorios.

Además de los Buenos resultados mostrados en el uso del Interferón Alfa 2-b, Cuba cuenta con otro medicamento que ha demostrado ser igual de efectivo. Este medicamento fue denominado "*Itolizumab*", el cual es un anticuerpo monoclonal humanizado utilizado en el tratamiento de leucemia y linfomas. Una de las funciones de este medicamento es disminuir la secreción en factores que causan inflamación. Este medicamento ha sido usado exitosamente en Cuba por su capacidad de controlar zonas dañadas en los pulmones sin causar efectos adversos severos en los pacientes.

Retos de hoy.

En la actualidad, luego de seis meses de Cuba estar lidiando con esta pandemia sus habitantes enfrentan diversos retos. Uno de los principales retos que enfrentan es, la escases de agua potable. Es sabido que muchas zonas de Cuba hace años enfrentan esta difícil situación debido a la insuficiente infraestructura hidráulica que permita que llegue este servicio a todos por igual. Estos son tiempos más complicados en este sentido pues parte de evitar la propagación del virus entre otras medidas se encuentran las medidas higiénicas, las cuales al haber carencia de este líquido primordial se hace difícil. Lo anteriormente citado muestra un punto neurálgico pues es algo que el estado no esta en condiciones de resolver en un corto período de tiempo.

Otro de los retos que presentan los residentes en la isla es el acceso regular a los alimentos cumpliendo con el distanciamiento social establecido para evitar la propagación del virus. Parte de la costumbre del cubano como Sociedad, esta la asumir que tiene que hacer largas colas⁴ para tener acceso a diferentes productos de primera necesidad ya sean alimenticios, cosméticos o de aseo personal. Lo cual no significa que estemos de acuerdo o que no nos desagrade. Esperar en una cola en Cuba es algo que independientemente del número de personas que acuden al mismo lugar en un mismo período tiempo, se debe a la limitada distribución de productos en la red de tiendas del

⁴ Colas: palabras utilizada en el argor popular cubano para denominar una fila de personas.

país. Esto limita el número de lugares en los cuales obtener el producto deseado, así como las opciones de estos productos.

El reto mayor lo enfrenta el estado cubano pues debe mantener la distribución de bienes a la población en medio de una pandemia en la que las relaciones comerciales a nivel internacional han disminuido, así, como lograr el distanciamiento social de las personas necesitadas de esos productos distribuidos en pocas tiendas de la red nacional.

Además del tema sanitario y alimenticio el estado cubano ha tenido que tomar medidas para no ahondar aún más en un declive económico. Muestra de ello ha sido la reinserción del dólar como moneda de comercio interno.

A modo de conclusiones se puede decir que durante esta pandemia la cual para los cubanos constituye otro período de crisis; el país ha sido capaz de adoptar medidas para tratar pacientes infectados, así como dar seguimiento a la cadena de contagios lo cual es muy importante y mantener un bajo índice de mortalidad por causa de virus.

Cuba como isla no ha demostrado resultados positivos para evitar la propagación del COVID-19 sobretodo en tiempos de globalización.

La pandemia ha afectado sustancialmente la planificación de la economía. De manera interna ha hecho adoptar medidas económicas que habían sido incluso rechazadas en el 7mo congreso del PCC⁵. De manera externa ha sido afectado el turismo, debilitando una de las principales fuentes económicas del país. Por otro lado, propició que se desarrollara y se expusieran al mundo los avances médicos cubanos y se continuaran enviando médicos a países necesitados.

El Estado Cubano ha demostrado que no cuenta con los recursos necesarios para mantener a la población con el adecuado nivel de abastecimiento de alimentos y productos de primera necesidad, así como lograr cumplir con todas las medidas higiénico-sanitarias que propicien la erradicación a corto plazo del virus en el país.

⁵ PCC: Partido comunista de Cuba por sus siglas en español, el 7mo congreso fue efectuado en 2017.



C. Essays

COVID-19—From a Health Crisis to a Humanitarian Crisis

Maria Chiara Marullo¹

Francisco Javier Zamora Cabot²

These pages offer some reflections on the health and humanitarian crisis, after the roundtable organized by Prof. Larry Catá Backer to discuss the actual situation of COVID-19. As researchers specialized on business and human rights as well as transnational litigation in cases of serious violations of fundamental rights and environmental damages, with particular attention to vulnerable groups, we are concerned with the current health crisis due to its multiple impacts on societies³. On this last point, as notes of hope, we can mention some recent judicial developments on transnational human rights litigation,

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² Full Professor of Private International Law, Universitat Jaume I, zamora@uji.es. Coordinator of the AUIP Network: REDH-EXATA: La “Red Empresas y Derechos Humanos. Incidencia especial en el extractivismo y los acaparamientos de tierra y agua” (REDH-EXATA). More information at their website: [<https://Redhexata.com>].

³ Social impact of the COVID-19. “We are facing a global health crisis unlike any in the 75-year history of the United Nations — one that is killing people, spreading human suffering, and upending people’s lives. But this is much more than a health crisis. It is a human, economic and social crisis. The coronavirus disease (COVID-19), which has been characterized as a pandemic by the World Health Organization (WHO), is attacking societies at their core”. See: UN Department of Economic and Social Affairs Social Inclusion, “The Social Impact of COVID-19 (6 April 2020); available [<https://www.un.org/development/desa/dspd/2020/04/social-impact-of-covid-19/>].

in the US⁴, Canada⁵ and also in the European Union⁶; we think that they can make great strides on the issue of holding large corporations accountable for activities that violate human and/or labor rights and the environment.

Related to our first line of research, business and human rights, it has become critical to evaluate the impact of the industrial activities in our societies. Especially, we must monitor the responsibility of these corporations with regard to their commitments against human rights abuses. As we have put forward in different publications⁷, the corporate systems of governance have failed to cope with the new responsibilities that they face.

In the last few years, most transnational corporations have introduced [corporate](#) social responsibility and sustainable principles in their strategies. They have also made different statements about the importance of respecting human and labor rights in almost all the companies that operate in their global supply chains. Nevertheless, during this crisis, our social networks and mass media have been overwhelmingly sending information about abuses and unethical behavior in developing

⁴ Among others, Maria Chiara Marullo and Francisco Javier Zamora Cabot, "Transnational human rights litigations. Kiobel's touch and concern: a test under construction", *Papeles el tiempo de los derechos*, 1, 2016. Available at: [\[https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2765068\]](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2765068))fort hcoming two articles related to the Vedanta case and Kiobel III).

⁵ On this topic, among others, see our contribution at *Papeles el Tiempo de los Derechos: Empresas multinacionales y DD.HH.: ¿Hacia el fin de la impunidad? Apuntes a la decisión del Tribunal Supremo canadiense en Nevsun Resources Ltd. v. Araya*, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3583939.

⁶ See: Covington, "Business and Human Rights: Global Developments" (29/05/2020); available at [\[https://www.cov.com/-/media/files/corporate/publications/2020/05/business-and-human-rights-global-developments.pdf\]](https://www.cov.com/-/media/files/corporate/publications/2020/05/business-and-human-rights-global-developments.pdf).

⁷ More recently: Francisco Javier Zamora Cabot, "Gobernanza mundial y el binomio empresas-derechos humanos", , *Anales de la Real Academia de Doctores*, num. 1. vol. 5. pp. 87-113. 2020; and "Las grandes empresas y su incidencia sobre el sistema democrático, Francisco Javier Zamora Cabot, Maria Chiara Marullo, *Papeles el Tiempo de los Derechos*. Num. 18. pp. 1-17. 2019; available [\[https://www.researchgate.net/publication/337223983_Papeles_el_tie mpo_de_los_derechos_LAS_GRANDES_EMPRESAS_Y_SU_INCIDENCIA_S OBRE_EL_SISTEMA_DEMOCRATICO_BIG_BUSINESS_AND_ITS_IMPACT_ ON_THE_DEMOCRATIC_SYSTEM\]](https://www.researchgate.net/publication/337223983_Papeles_el_tie mpo_de_los_derechos_LAS_GRANDES_EMPRESAS_Y_SU_INCIDENCIA_S OBRE_EL_SISTEMA_DEMOCRATICO_BIG_BUSINESS_AND_ITS_IMPACT_ ON_THE_DEMOCRATIC_SYSTEM).

countries⁸, where many corporations have relocated their activities and where the majority of the population does not have sufficient income to survive nor adequate health-care systems. An example is the problem related to Covid-19 outbreaks in the meat industry in the US⁹, Germany¹⁰ and Morocco¹¹. It is showing the poor living and working conditions of employees, most foreigners, often “housed en masse in unhealthy dormitories”¹², where no health or safety measures are respected¹³.

The way in which industries carry out economic activities on a global scale is far from the ideal of sustainability

⁸ See the report on the impacts of covid-19 on Bangladesh garment industry, at: <https://edition.cnn.com/2020/04/22/business/bangladesh-garment-factories/index.html>.

⁹ Vincent ter Beek, “Covid-19: US pig markets still suffer; Europe feels effects too”, *Pig Progress* (8 May 2020); available [https://www.pigprogress.net/Health/Articles/2020/5/Covid-19-US-pig-markets-still-suffer-Europe-feels-effects-too-580432E/].

¹⁰ Rebecca Staudenmaier, “Germany’s meat industry under fire after COVID-19 outbreak”, *DW* (19 May 2020); available [https://www.dw.com/en/germanys-meat-industry-under-fire-after-covid-19-outbreaks/a-53502751]. See also, “Germany: Cabinet proposes new regulations to better protect meatpacking workers following COVID-19 outbreaks at slaughterhouses”, Business and Human Rights Resource Centre (29 May 2020); available at [https://www.business-humanrights.org/en/germany-cabinet-proposes-new-regulations-to-better-protect-meatpacking-workers-following-covid-19-outbreaks-at-slaughterhouses].

¹¹ “El foco más grave de COVID-19 en Marruecos aparece en dos empresas españolas”, *La Vanguardia* (20 June 2020); available [https://www.lavanguardia.com/internacional/20200620/481857338454/marruecos-coronavirus-brote-empresas-espana.html].

¹² “The trend is starting to expose an uncomfortable reality: much of the cheap meat on Western supermarket shelves is slaughtered by migrant workers who earn low wages, often live together in dorms and operate in crowded working conditions even in the midst of a pandemic. See Natalie Huet, “COVID-19 outbreaks in German slaughterhouses expose grim working conditions in meat industry,” *EuroNews* (13 May 2020); available [https://www.euronews.com/2020/05/12/covid-19-outbreaks-in-german-slaughterhouses-expose-grim-working-conditions-in-meat-indust].

¹³ Christina Marrone, “Coronavirus, perché si diffonde così facilmente nei mattatoi”, *Corriere della Sera* (21 June 2020); available [https://www.corriere.it/salute/malattie_infettive/20_giugno_21/coronavirus-perche-si-diffonde-cosi-facilmente-mattatoi-d69a2ac2-b3c5-11ea-af5b-39ef34d55a35.shtml].

promoted by international summits. Time has come for businesses to change their model of corporate groups' management, to guarantee the implementation of their internal systems, to monitor the accomplishment of international human and labor standards. In fact, "the purpose of business is to profitably solve problems of people and planet, and not profit from causing problems"¹⁴.

Therefore, corporations must introduce mechanisms to effectively reduce their social impacts and, at the same time, the international community needs to eradicate corporate impunity in cases of human rights abuses and environmental damages¹⁵. In line with the co-responsibility framework, sponsored by the 17 Sustainable Development Goals¹⁶ in an alliance between public and private sectors, it is crucial for corporations with effective control or influence within their groups, to guarantee that labor protections are not rolled back in this dramatic moment. In this way a very interesting initiative was launched by the UK Government¹⁷ through the Global Resources Initiative (GRI). This initiative, that we hope that could serve as an example for other countries, aims to draw a strategic pathway and a package of measures intended to "introduce a mandatory due diligence obligation"¹⁸, "reduce the impacts on deforestation and land conversion associated with the UK's

¹⁴Please refer to: "The British Academy proposes principles for the age of purposeful business" (27 Nov. 2019); available [<https://www.thebritishacademy.ac.uk/news/british-academy-proposes-principles-age-purposeful-business>].

¹⁵ Maysa Zorob and Andrea Hearon, "What are the avenues for corporate liability for COVID-19-related human rights abuses?", *Business & Human Rights Resource Centre* (16 June 2020); available [<https://www.business-humanrights.org/en/what-are-the-avenues-for-corporate-liability-for-covid-19-related-human-rights-abuses>].

¹⁶ See: United Nations, Sustainable Development Goals, Goal 17: Revitalize the global partnership for sustainable development.; available [<https://www.un.org/sustainabledevelopment/globalpartnerships/>].

¹⁷ See: Global Resource Initiative Taskforce.: The Global Resource Initiative Taskforce (GRI) considered how we can reduce the climate and environment effects of key UK supply chains; available [<https://www.gov.uk/government/publications/global-resource-initiative-taskforce>].

¹⁸ Global Resource Initiative, "Global Resource Initiative Final Recommendations Report 2020 (March 2020); available [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/876465/gri-taskforce-executive-summary.pdf], executive summary], p. 3..

commodity imports and domestic consumption”¹⁹ and “Mobilize global funds, public and private, to tackle deforestation and land-use conversion and support sustainable production and trade in agricultural and forestry products”²⁰.

It is clear that in these extraordinary times, and before we can find a suitable vaccine or treatment for this disease, more engagement of the leading company is needed in all types of industries. Their supply chains will start functioning again in the next months and, as such, the major company of the group must take the lead for a safer and fairer industry governed by binding and enforceable due diligence mechanisms on workers’ safety and health²¹. In this line, we support the proposal to re-evolve towards the global *Green New Deal plans*²², which will allow us to better manage risks and minimize the environmental impacts of the industries’ activities. Those plans post COVID-19 crisis could contemplate how to restart the global economy and include new strategies for “renewable energy, batteries

¹⁹ *Ibid.*, p. 14.

²⁰ *Ibid.*, p. 3

²¹ See Valerie Nelson, Professor Olga Martin-Ortega and Michael Flint, Report: “Making Human Rights Due Diligence Work: An Analysis of Impact and Legal Options”, Sustainable Trade and Responsible Business (STRB) Development Programme of the Natural Resources Institute (NRI) and the Business, Human Rights and the Environment Research Group (BHRE) (8 June 2020). In the report, the authors present the current evidence on the impact of human rights due diligence on the ground in two sectors: agriculture and textiles. More information available [<http://www.bhre.org/current-news/2020/6/5/making-human-rights-due-diligence-work>].

²² “The Green New Deal plans were released as part of the ruling party’s election manifesto in March. They were presented as a way to meet the country’s obligations set down in the international Paris Climate Agreement: to submit updated carbon reduction plans to 2030, and long-term goals by the end of the year. Although there is no agreed definition of a ‘Green New Deal’, the manifesto referred explicitly to the US Democratic Party’s Green New Deal proposals, and the EU’s ‘Green Deal for Europe’. It also sets the goal for getting to net zero emissions by 2050 – the same as the UK’s target, although the UK government has not explicitly outlined any kind of green deal”. See Helle Abelvik-Lawson, “In the world’s first ‘Coronavirus elections’, South Korea voted for climate action,” Greenpeace (23 April 2020); available [<https://www.greenpeace.org.uk/news/south-korea-green-new-deal-coronavirus-elections/>].

technology and hydrogen fuel to reduce regional air pollution”²³. As an important step towards this change in paradigm, on April 29, 2020, the European Commission has announced that it will introduce a specific legislation on mandatory sustainable due diligence for companies as part of the Commission’s 2021 work plan and the European Green Deal:

The announcement came during a high-level online event hosted by the European Parliament’s Responsible Business Conduct Working Group, during which the Commissioner presented the findings of the Commission study on due diligence requirements through supply chains. This encouraging announcement is the result of a sustained campaign by civil society, including Global Witness, for the EU to introduce binding cross-sectorial laws requiring companies and financial institutions to identify, prevent, mitigate and account for human rights abuses and environmental damage linked to their operations, subsidiaries or value chains²⁴.

Related to the protection of vulnerable groups, this is a crisis without precedent in our recent history, and strongly related to migration. Especially dramatic are two situations: the current inequality, discrimination and xenophobia²⁵ against

²³ See: John Barry, “Coronavirus: how economic rescue plans can set the global economy on a path to decarbonisation”, Greenpeace (23 April 2020); available [https://www.greenpeace.org/new-zealand/story/coronavirus-how-economic-rescue-plans-can-set-the-global-economy-on-a-path-to-decarbonisation/].

²⁴ See, Global Witness, “Important step towards greater corporate accountability as European Commission commits to new EU rules to regulate supply chains” (29 April 2020); available [https://www.globalwitness.org/en/press-releases/important-step-towards-greater-corporate-accountability-european-commission-commits-new-eu-rules-regulate-supply-chains/?utm_source=hootsuite&utm_medium=twitter_].

²⁵ “Government leaders and senior officials in some instances have directly or indirectly encouraged hate crimes, racism, or xenophobia by using anti-Chinese rhetoric. Several political parties and groups, including in the United States, United Kingdom, Italy, Spain, Greece, France, and Germany have also latched onto the Covid-19 crisis to advance anti-immigrant, white supremacist, ultra-nationalist, anti-Semitic, and xenophobic conspiracy theories that demonize refugees, foreigners, prominent individuals, and political leaders”. More information at: “Covid-19 Fueling Anti-Asian Racism and Xenophobia Worldwide: National Action Plans Needed to Counter Intolerance”, Human Rights

migrants located in Western countries²⁶ and the lack of protection for incoming migrants, including climate ones, and other displaced persons during this crisis.

Many concerns have been raised due to the precarious conditions that many persecuted minorities or indigenous people²⁷ face every day, especially those that are forced to leave their territory. The Rand Corporation on Research and Development²⁸ created an Index, supported by some governments and international agencies, *The Infectious Disease Vulnerability Index*, to identify the countries which are most vulnerable to epidemics. As expected, conflict zones or the territories where the minorities are persecuted are in a critical situation because of their poor health and sanitation systems²⁹.

Watch (12 May 2020); available [https://www.hrw.org/news/2020/05/12/covid-19-fueling-anti-asian-racism-and-xenophobia-worldwide].

²⁶ Esther Mamadou Youssef, M. Ouled Isabelle and Mamadou Lydia Vicente Márquez, "Crisis sanitaria Covid-19, Racismo y xenofobia durante el estado de alarma en España", Rights International Spain and Equipo de Implementación del Decenio Afrodescendiente en España; available [http://www.rightsinternationalspain.org/uploads/publicacion/d0b782ac0452e9052241b17a646df19ad4edf12c.pdf].

²⁷ An example: "The COVID-19 pandemic has strongly affected many people and in many ways. This does not exclude indigenous peoples who are frequently regarded as the poorest and may live below normal standards of living compared to other people in the world. In Uganda in the 1990s, the majority of the indigenous Batwa people were evicted and displaced from their ancestral land, the forests which they depended on for survival. As a result, the majority of Batwa people now live in a poor status and have to depend on others for survival through offering cheap labour. They can only eat when they have worked". More information at: UOBDU, "Increased hunger and poverty among the Batwa amidst COVID-19 in Uganda", Forest Peoples Programme (7 May 2020); available [https://www.forestpeoples.org/en/increased-hunger-and-poverty-for-Batwa-in-Uganda-amid-covid-19].

²⁸ See: Melinda Moore, Bill Gelfeld, Adeyemi Theophilus Okunogbe, Christopher Paul, *Identifying Future Disease Hot Spots Infectious Disease Vulnerability Index* (Washington, D.C., Rand, 2016); available [https://www.rand.org/pubs/research_reports/RR1605.html].

²⁹ "Communities who have already displaced due to violence are highly vulnerable to COVID-19, and check points set up by armed groups can prevent vital food and medical supplies from reaching those most in need. In the Philippines, pupils and teachers who had moved to Manila three years ago to escape the conflict in their home province of Mindanao are now trapped by the lockdown. According to the Asia Indigenous Peoples Pact (AIPP), there are 68 indigenous students and teachers among them,

The refugee camps in Bangladesh are a powerful example of this situation. These camps are one of the world's largest refugee settlements, where more than 900,000 Muslim Rohingyas have been displaced³⁰ without any possibility to return to Myanmar in the near future. A large study of our own on the *Rohingya's genocide* is approaching publication, and we have worked in order to identify the actors, the states and also the businesses involved in the crimes against this community and the possible solutions to address the specific problems related to this crisis³¹. Currently, these people live in isolation and without the hygienic-sanitary conditions necessary to avoid contracting the virus³². Recently, the Bangladesh "refugee relief and repatriation Commissioner" issued orders restricting services and facilities in the Rohingya refugee camps and provided specific norms for the arriving migrants:

Under international law, public health measures taken in response to the Covid-19 pandemic must be proportionate, nondiscriminatory, and based on available scientific evidence. It may be reasonable to subject those who arrive to a period of isolation or quarantine. But the pandemic cannot justify a blanket ban such as Bangladesh's refusal to allow any Rohingya now or in the future to disembark. Forcing them to remain on the boat also risks their right to health³³.

some as young as 11, and the cramped living conditions in the city are making social distancing impossible".

More information at: Vicki Brown and Caroline de Jong, "Covid-19 pandemic heightens risks for forest peoples already in threatening situations", Forest Peoples Programme (24 April 2020); available [<https://www.forestpeoples.org/en/covid-19-heightens-risks-for-forest-communities-already-in-threatening-situations>].

³⁰See: "Life for the Rohingya in the world's largest refugee camp", Reuters (August 2019); available [<https://news.trust.org/packages/life-for-the-rohingya-in-the-worlds-largest-refugee-camp/>].

³¹Francisco Javier Zamora Cabot and Maria Chiara Marullo, "El conflicto Rohingya y sus proyecciones jurídicas: aspectos destacados", *Ordine internazionale e diritti umani*, (2020) (forthcoming).

³²More information at: "Global: Ignored by COVID-19 responses, refugees face starvation", Amnesty International (14 May 2019); available [<https://amnesty.ca/news/global-ignored-covid-19-responses-refugees-face-starvation>].

³³"Bangladesh: Rohingya Refugees Stranded at Sea", Human Rights Watch (25 April 2020); available

As such, the impacts of the COVID-19 are devastating in this area, especially if the International Community does not take urgent measures³⁴. A similar critical situation is happening in the Gaza Strip³⁵, where medical facilities are unavailable to face the pandemic. Unfortunately, it is now not necessary leaving Europe to find regrettable conditions at migrant camps in Greece³⁶ where there are at least 110,000 people³⁷ in this moment. Just across the Mediterranean Ocean, too, we can find the Libyan migrant's camps, where the risks linked to health crises, added to other human rights abuses, are enormous so the impacts of COVID-19 could be catastrophic as well³⁸. Along these lines, the recent decisions of the Italian Government³⁹ are worrisome: on April 7, 2020 the Italian ports have been

[<https://www.hrw.org/news/2020/04/25/bangladesh-rohingya-refugees-stranded-sea>].

³⁴ Muhammad Nazrul Islam, Toki Tahmin Inan, MSc and Najmul Islam, "COVID-19 and the Rohingya Refugees in Bangladesh: The Challenges and Recommendations", *Asian Pacific Journal of Public Health* 32(5):283-284; available [<https://journals.sagepub.com/doi/full/10.1177/1010539520932707>].

³⁵ See: Aiswarya Murali "COVID's March towards the Gaza Strip. Quality Health Care, a Right or a Privilege?" *International Law Blog* (28 April 2020); available [<https://internationallaw.blog/2020/04/28/covids-march-towards-the-gaza-strip-quality-health-care-a-right-or-a-privilege/>].

³⁶ See: Katy Fallon, "Greece: 148 refugees test positive for COVID-19, all asymptomatic", *Aljazeera* (21 April 2020); available [<https://www.aljazeera.com/news/2020/04/greece-148-refugees-test-positive-covid-19-asymptomatic-200421134039733.html>]. See also, Margarita Elías, "Grecia expulsa colectivamente a más de 700 solicitantes de asilo ante el silencio cómplice de la Unión Europea", *Público* (3 June 2020); available [<https://www.publico.es/sociedad/violencia-refugiados-grecia-grecia-expulsa-colectivamente-700-solicitantes-asilo-silencio-complice-union-europea.html>].

³⁷ See: Renee Maltezou, "Greece quarantines second migrant camp after COVID-19 case confirmed", *Reuters* (5 April 2020); available [<https://www.reuters.com/article/us-health-coronavirus-greece-camp-idUSKBN21N06B>].

³⁸ See: Niall McGlynn, "Ignoring COVID-19 cases at Libya migrant centers will have dire consequences for Europe", *Euronews* (16 April 2020); available [<https://www.euronews.com/2020/04/16/ignoring-covid-19-cases-libya-migrant-centres-will-have-dire-consequences-for-europe-view>].

³⁹ M. Inf. Uffgab.Reg.Decreti.R.0000150.07-04-2020; available [[https://www.avvenire.it/c/attualita/Documents/M_INFR.GABINETTO.REG_DECRETI\(R\).0000150.07-04-2020%20\(3\).pdf](https://www.avvenire.it/c/attualita/Documents/M_INFR.GABINETTO.REG_DECRETI(R).0000150.07-04-2020%20(3).pdf)].

declared unsafe for the landing of refugees from foreign civilian and military ships⁴⁰.

What will happen to these people? Probably their destiny could be death, or to become victims of human trafficking activities, or be pushed back to the migrant's camps, where they risk being tortured.

The European Union—based supposedly on the rule of law and founded on values of freedom, democracy, respect for human dignity and human rights, including the rights of minorities⁴¹—is accused of turning a blind eye on this situation, even if urgent action is needed due to the risk of the pandemic in camps added to other human rights violations, torture and forced labor⁴². These problems add to the one about the internal

⁴⁰ "We note that, with a ministerial decree dated 7 April, the Italian government has also declared that the country cannot be regarded as a place of safety for the purposes of disembarking people rescued outside Italy's SAR region. Albeit in this letter we wish to focus on Malta, we consider that Italy's decision, which we have publicly criticized alongside other NGOs, has contributed to render the situation in the central Mediterranean more dangerous for refugees and migrants and to undermine the law of the sea and international human rights and refugee law". More information at: Eve Geddie, "Concerns about pushbacks of refugees and migrants at sea and closure of sea ports", Amnesty International Letter to Ylva Johansson, Commissioner for Home Affairs, European Commission, Ref. B1996 (21 May 2020); available [<https://www.amnesty.eu/wp-content/uploads/2020/05/B1996-Letter-to-Commission-on-pushbacks-and-port-closures.pdf>].

⁴¹ Cf. EU Treaties website; available [https://europa.eu/european-union/law/treaties_en].

⁴² On this point, it is very interesting the recent document: *European Union and its values: Freedom, solidarity and democracy* (Agnieszka Kos, Jan Misiuna, Marta Pachocka, Aleksandra Szczerba-Zawada, eds.) Warsaw: Polish European Community Studies Association (PECSA), 2020; available [<http://www.pecsa.edu.pl/sites/default/files/PECSA%20European%20Union%20and%20its%20values.pdf>]. In particular the chapters: "Refugee crisis and the limits of the EU's human rights norm promotion" de Sinem Bal, pp.71-84. "EU, states, and NGOs – multi-agency response to refugee crisis and its challenges for EU values" de Mateusz Krepa, pp.85-94; "Solidarity in EU asylum policy: perpetual or extraordinary call?", de Danai-Georgia Koutsopoulou, pp.95- 104; "Why EU should urgently review its cooperation with Turkey on migration?" de Marta Górczynska, pp. 105- 114; working towards inclusion of refugees: NGOs in the Netherlands – the case of the Dutch Council for Refugees", de Violetta Gul-Rechlewicz, pp.115-124 and "The refugee crisis, the illiberal

division in the Continent. There are two *Europes* with different values, principles and economies: the northern Europe and the Mediterranean countries. This internal division stands in the way of the development of policies based on solidarity and common values⁴³. Even if, at a given moment, they share a “rather negative- strategy” on the treatment due to migrants and refugees.

This leads us to reflect on the role that the European Union should be playing as an outstanding international, legislative and strategic actor, in order to the development and protection of human rights. But, unfortunately, it is clear to us that its priorities revolve mainly around economic interests and the protection of the European and State member’s markets. Due to this, the European Institutions have found no effective solutions to the migration problem in the last six years. The only determination was to achieve critical deals with Turkey and Libya to cut refugee and migrant’s flows from Turkey or North Africa to Greece, Malta, Italy or Spain. So, this humanitarian crisis, aggravated by the current health situation, requires coordinated actions to effectively protect and guarantee migrant and refugees’ rights.

Finally, moving on to another concern that worries us, almost three months have passed since lockdown measures and restrictions on individual freedoms began to be activated in Europe to face the pandemic. Among other countries, in Spain, the place where we live and work, where these measures have been very drastic and have led to the confinement of the total population throughout the territory, without discrimination of the number of infected and fatal victims from the different

populist challenge and the future of the EU: is illiberal democracy on the march? The case of Hungary, de Edina Lilla Mészáros, pp.125-140.

43 “The COVID-19 pandemic is demonstrating all too well that unequal societies go hand-in-hand with human suffering, fragile economies and delicate democracies. Solidarity must be the bedrock of Europe’s response to this crisis: to fighting the pandemic and protecting all people, to managing the social and economic consequences, and to defending democracy. Solidarity goes beyond borders and should not be limited to European Union countries”. More information at Amnesty International, “For a Europe that cares for all – during the COVID-19 pandemic and beyond”, available [https://www.amnesty.eu/wp-content/uploads/2020/04/For-a-Europe-that-cares-for-all-during-the-COVID-19-pandemic-and-beyond.pdf].

autonomous communities⁴⁴. These measures have surely achieved the main objective of reducing contagion and taking pressure off the health system to be able to care for the people affected by this disease. However, they have also led to many restrictions as well as the establishment of important sanctions in case of non-compliance.

Without going into an assessment of the reasons that led the Spanish Government to act in this way, nor doubting that the only purpose has been public health and the protection of the most vulnerable people, some questions arise, especially related to the proportionality of the measures. It is obvious that during health crisis, in order to prevent the spread of dangerous diseases, governments can introduce some limited and beyond a reasonable time period, restrictions on fundamental rights and freedoms, to protect public health. However, this does not mean that these freedoms or rights are suspended. It is clear that the State may only interfere, with specific restrictive measures enacted to reduce the negative impacts of the pandemic, adequately and proportionately. As a matter of example, since the declaration of state of emergency, we, as citizens, assumed that the right of demonstrations and peaceful protests could be banned because of the pandemic.

Related to this, the Spanish Constitutional Court has recently upheld the prohibition of demonstrations in Vigo, appealing that the right to life is above the right to demonstrate⁴⁵. The Court explains that the fundamental right of assembly is not an absolute or unlimited right, but that there must be “well-founded reasons” for its alteration. The decision has been criticized by different lawyers due to the fact that during the last weeks there have been many contradictory resolutions issued by different judicial instances. Controversy has arisen over what should prevail: “the protection of public health or the rights of assembly and demonstration”.

⁴⁴ More information at the Comparative COVID Law website; available [<https://comparativecovidlaw.com/spagna/>].

⁴⁵ See: Angela Martialay and Manuel Marraco, “El TC avala prohibir manifestaciones del 1 de Mayo que sí autorizan tribunales superiores,” *El Mundo* (30 Abril 2020); available [<https://www.elmundo.es/espana/2020/04/30/5eaaf952fdddff0d5a8b4582.html>].

Regarding this specific point, we would like to underline also that the position of the German Constitutional Court is quite different. Some weeks ago, it defended the right to demonstrate, even in times of pandemic: “Strengthen health instead of weakening fundamental rights”⁴⁶. The said Court does not authorize directly the protests, but affirms that the limitations introduced by State’s ordinances to combat the coronavirus must not contain an absolute prohibition on the concentration of more than two people, so the authorities cannot prohibit demonstrations or protests in general, but only in cases where it is difficult to maintain the distance or wear masks.

This court reaffirmed the imperative of respecting civilian and political rights also during this crisis, because, as the United Nations High Commissioner for Human Rights Michelle Bachelet said: “If the rule of law is not upheld, then the public health emergency risks becoming a human rights disaster, with negative effects that will long outlast the pandemic itself”.

* * *

⁴⁶ See: Joseph Nasr, “Germans have right to protest during coronavirus pandemic: court”, Reuters (16 APRIL 2020); available [<https://www.reuters.com/article/us-health-coronavirus-germany-protests-idUSKCN21Y220>].

Emancipating the Mind (2020)15(2) (Special Issue)

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From a Health to a Humanitarian Crisis

C. Essays

The Metamorphosis of COVID-19: State, Society, Law, Analytics

Larry Catá Backer¹

1. *Metamorphosis.*

“Of bodies changed and other forms I tell; you Gods, who have yourselves wrought every change, inspire my enterprise and lead my lay in one continuous song from nature’s first remote beginnings to our modern times.”² So Ovid begins his *Metamorphoses*, an epic of not just transformation, but of acceleration, of revelation, and of the unmasking of things to reveal their essence, especially in the face of stress.³ In the process of transformation the world and its actors, its processes, and its desires (expressed in physical as well as abstract forms) is revealed. *Metamorphoses* in Ovid, then, is as much about revelation as it is about transformation; it is the means by which a thing, a relationship, an object, assumes a truer form under conditions of stress or challenge.

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² Ovid, *Metamorphoses* (A.D. Melville (trans.) Oxford, 1986(c. 14 A.D.)), p. 1. In the original: “In nova fert animus mutatas dicere formas corpora; di, coeptis (nam vos mutastis et illas) adspirate meis primaque ab origine mundi ad mea perpetuum deducite tempora carmen.”

³ The etymology of the word in the English speaking world reveals as well not just its origins in the changing of shape or form, but also the association of this change of shape or form (from the Greek “meta” (change) plus “morphe” (shape or form) but also of that transfiguration by witchcraft or magic, that is with the aid of a divine (immanent or transcendent) power.

This essay, lightly footnoted,⁴ takes that as its organizing theme. In our own time, the COVID-19 pandemic produce metamorphoses. Society—political, moral, economic, cultural—have worked diligently to deny metamorphoses.

The coronavirus pandemic has changed the world and left countless people longing for a pre-pandemic way of life. That desire is likely only further straining our mental health. "Our brains really are very eager to get back to normal, to get back to January 2020," Dr. Gleb Tsipursky, CEO of Disaster Avoidance Experts and author of a book about adapting to "the new abnormal" of COVID-19, told USA TODAY. But that's simply not possible, Tsipursky said.⁵

Essay examines the metamorphoses of COVID-19 on global social orders. It does so from the perspective of the initial encounter with the enormity of the pandemic. The perspective is thus both predictive and historical, and helpful to the reader perhaps precisely because of its way it is situated in both. Only time will reveal the extent of the transformations—like Ovid, the object is to reveal those transformations and to watch as its objects then stagger towards their futures—sometimes both changed and ignorant of the outward manifestation of the changes triggered by COVID-19.

That this is possible suggests the essence of metamorphosis—it merely reveals, it accelerates, it activates—that which was already latent in the object of change, whether that object was an individual or some form of human collective. The greatest tragedy of COVID-19 also serves as its great

⁴ "The essay . . . takes the anti-systematic impulse into its own procedure, and introduces concepts directly. . . . they gain their precision only through their relation to one another," Theodor W. Adorno (Bob Hullot-Kentor, and Frederic Will, (trans), "The Essay as Form" *New German Critique* 32:151-171, 160 (1984; 1954) (it says what is at issue and stops where it feels itself complete—not where nothing is left to say" *Ibid.*, p. 152; The essay silently abandons the illusion that thought can break out of thesis into physis, out of culture into nature." *Ibid.*, p. 159).

⁵ Joel Shannon, "When will things go back to normal? Experts say that's the wrong question amid COVID-19," *USA Today* (10 October 2020); available [<https://www.usatoday.com/story/news/health/2020/10/10/coronavirus-when-return-to-normal-life/5882898002/>].

triumph—its power to rip away the decay that marked the bodies of those things transformed to reveal their essence. It is to an examination of the forms and consequences of this stripping away, to the alignment of internal and external, that this essay focuses.

The essay is divided into four sections. Section 2 first considers COVID-19 as the virus of societal acceleration. That is of the way that COVID-19 accelerates trajectories already present and latent in collective bodies (and as well in the bodies of individuals within their own family collectives). Section 3 then considers the transformation of origin stories. The transformation of the story of the origins of COVID-19 align with the transformations of the relations between China and the US and between China and the international community. And these are not without consequence.⁶ Origins point to culpability, and the culpable might be held accountable.⁷ Section 4 then examines the moral transformation accelerated by pandemic. The focus here is on sacrifice—the sacrifice of the aged by the healthy, the sacrifice of the poor by those with greater means, and the sacrifice of women’s autonomy. Section 5 then considers the transformation of law. The science of law has been overcome by that of the science of data, of psychology, and of prediction. And with that transformation, an even greater transformation of the autonomy of the individual before the state. Where individuals were once assumed to be autonomous actors capable of adhering and culpable for lapses in conforming behavior to commands, now they are understood as the aggregation of the sum of their actions, actions which can be

⁶ See, e.g., James D. Schultz and Sean Carter, “China needs to be held accountable for Covid-19’s destruction,” CNN Opinion (20 June 2020); available [https://www.cnn.com/2020/06/20/opinions/china-needs-to-be-held-accountable-for-covid-19s-destruction/index.html] (“That the Chinese government has significant culpability for the global spread of Covid-19 and needs to be held accountable for its misconduct should not be a partisan issue. We already know that the Associated Press has reported the Chinese government concealed critical facts about the emergence of the virus; that local officials silenced voices of warning; and that as a result, actions of Chinese officials most likely deprived the world early on of critical information about the virus’ transmissibility and lethality.”).

⁷ Riley Walters and Dean Chang, “How to Hold China Accountable for COVID19,” Heritage Foundation (21 April 2020); available [https://www.heritage.org/asia/commentary/how-hold-china-accountable-covid-19].

predicted and nudged through rewards and punishment.⁸ Entities, in turn, build policy by incarnating the aggregated mass of human behaviors within a community. Law is transformed into simulation even as the individual is transfigured as the incarnation of the sum of the data she generates.

The essay ends with a brief consideration in Section 6, *Metamorphoses*, of the consequences of these transformations. “What was before is left behind; what never was is now; and every passing moment is renewed.”⁹ It is not law or politics (much less economics) that drives COVID-19; it is COVID-19 that drives masters of these fields and the shaping of these tools. In that driving COVID-19 transforms both form and object to suit an emerging era. That idea of metamorphosis is not based on the notion that COVID-19 has transformed the societal order into something else—rather the thesis of this essay is that COVID-19 has stripped away pre-pandemic pretensions and has made it possible for societal order to transform into itself—its more accurate representation of itself.

2. *The COVID-19 Accelerator Effect*.¹⁰

Plague accelerates even as it transforms.¹¹ There is no magic to plague; it operates in the environment in which it appears, and is both constrained by that environment (technology, societal taboos, hygiene and the like) and provides it with the openings through which rising societal contradictions, of its discontents,¹² might be resolved or the

⁸ B.F. Skinner, *Beyond Freedom and Dignity* (NY: Alfred A. Knopf, 1971) (“As a science of behavior adopts the strategy of physics and biology, the autonomous agent to which behavior has traditionally been attributed is replaced by the environment—the environment in which the species evolved and in which the species the behavior of the individual is shaped and maintained.” *Ibid.*, p. 185). .

⁹ Ovid, *Metamorphoses* (A.D. Melville (trans.) Oxford, 1986(c. 14 A.D.)), p. 357 (The Doctrines of Pythagoras”).

¹⁰ This section was originally published as “Will COVID-19 infect the world order?: Payman Yazdani Interviews Larry Catá Backer,” *Mehr News Agency* (15 April 2020); available [https://en.mehrnews.com/news/157620/Will-COVID-19-infect-the-world-order].

¹¹ For the classic exposition, see, William H. McNeill, *Plagues and Peoples* (NY: Anchor Doubleday, 1977)

¹² David A. Westbrook, *City of Gold: An Apology for Global Capitalism in a Time of Discontent* (NY: Routledge, 2004).

level of their intensity advanced. One sees both in the wake of COVID-19.

A. Considering the Effects of COVID-19 on the contemporary (pre-2020) World Order.

First, it is important to underline that there WILL be effects on the current world order. That is an important premise because it was not at all necessary, nor was it necessarily predictable at the start of the pandemic. Thus, the first step in answering this question is to answer the question on which it must be based: have the influential elements with responsibility for the maintenance of the world order determined that the COVID-19 pandemic MUST produce effects. The answer to that question has become clear by the middle of April 2020—the COVID-19 pandemic must produce effects on a world order that, in retrospect will be understood, at the end of 2019, as a world order ready for change but unable to move by reason of inertia. In effect, then, COVID-19 will have effects on the world order precisely because those with the power to shape the narratives on the basis of which mass society understands and responds to the world have given that signification to the pandemic itself. Was it necessary to invest the pandemic with this change power? –NO! But does that matter anymore?—again NO!

Second, with the decision to invest the pandemic with this significance—that it must necessarily have an effect on the world order—the principal question comes into better focus. That question goes to the direction of the changes to the current world order that may emerge. Again—the effects and the direction cannot be understood as “natural” in the sense that there is an organic connection between the existence of pandemic and the vectors of change that it produces. The opposite is true. The changes to the world order triggered by the pandemic will reflect the application of rival ideologies through which the great powers see the world.

For Marxist-Leninist States, like China, the pandemic and their struggle against it proves and was crafted to exhibit, the virility and power of the Chinese political-economic model to

meet and overcome the COVID-19 challenge.¹³ That, vindication, in turn, will likely enhance the possibility for the emergence of a more visible new Communist international around the principles (now internationalized) of the Chinese Marxist Leninist system with application first within developing states participating in the Belt and Road Initiative, and thereafter (again modified to suit context) in other states. The result, under a best-case scenario, will be the emergence of a new approach to international ordering grounded on the Chinese vision with the transnational application.

For liberal democratic states, the same is also true. Here the pandemic is also both a “test” and a “portal” through which the fundamental principles of the political economic order are tested, modified and from which they will emerge stronger.¹⁴ In these cases, there will likely emerge two variations reflecting the ancient fissures between the old Roman world (the EU) and its northern frontier (now under the leadership of the US as its most perfected vanguard force). Where the Chinese system will emphasize centralization, planning, and the superiority of the political sector, the liberal democratic versions will emphasize decentralization, markets (private power), and the superiority of the economic and societal sectors.

Thus, the effects of COVID-19 will not be revolutionary in the sense of abandoning old systems. Rather it will accelerate tendencies already well observed. It will also further refine a tendency toward differentiation (and choice) rather than toward convergence. But again, these dominant ideologies invested the pandemic with a very specific signification—and an ancient one: it was a test (which could be rationalized in religious or secular “scientific” terms). That test was meant to prove the value of the system tested. But it was also meant to serve as a furnace within which the weakness of those systems might be burned away, leaving only the strong core from which the system could emerge changed and re-invigorated. But

¹³ “Key advantages of the Chinese system overcoming COVID-19,” CGTN (27 April 2020); available [https://news.cgtn.com/news/2020-04-27/Key-advantages-of-the-Chinese-system-overcoming-COVID-19-Q2jY4DjrB6/index.html].

¹⁴ Yaroslav Trofimov, “Democracy, Dictatorship, Disease: The West Takes Its Turn With Coronavirus,” *The Wall Street Journal* (8 March 2020); available [https://www.wsj.com/articles/democracy-dictatorship-disease-the-west-takes-its-turn-with-coronavirus-11583701472].

changed in ways that will hyper emphasize some of its organizing principles (described above) and scorch away the rest.

It is in that context that one can consider the effects on globalization. Many members of the intellectual sector who produce analysis for a living, as well as the planning sectors of governmental organs, are now obsessed with what they might (mis)interpret as the rise (again) of the state. And yet a closer view of “pandemic effects” might suggest that something else is at work here. Consider the focus on the way in which states “take control” through the re-invigoration of borders. But borders have always been a key element of economic globalization. Global production, itself grounded in the organization of segments, require that those segments be policed and protected. Economic globalization could not have existed in its current forms if it did not maintain these compartments that then could be used to segregate and contain risk.

States, then, within the global order, were meant to work like watertight compartments on a 20th century ship. That sealing off was usually protected with respect to goods, investment, and the direct projection of state power abroad through a series of barriers built in as exceptions to open trade. It applied as well to the free movement of people, with respect to which their double capacity—as labor inputs in production and as autonomous bearers of political power, complicated the management of their movement.¹⁵ The danger for globalization with respect to the state was that the compartments could not be sealed off when necessary. That, in part, was one of the reasons that migration erupted as a crisis in the 21st century. At least with respect to that, the state system operated more like the compartments on the Titanic than as wholly self-contained units (with the possible exception of North Korea).¹⁶

Thus understood, the role of the state—as cogs in translational orders—emerges more clearly. Pandemic was precisely the moment with the protection of global production required the state to use its police power and its borders. But at

¹⁵ Ruth Rubio-Marín, *Immigration as a Democratic Challenge: Citizenship and Inclusion in Germany and the United States* (Cambridge, 2000).

¹⁶ “Titanic Construction: Building the “Unsinkable” Ship,” History on the Net; available [<https://www.historyonthenet.com/the-titanic-construction>].

the same time, the pandemic drew much more clearly the difference between the state as an agent for the protection of the free movement of goods, capital, and investment (even where those might be divided among the big three emerging globalist empires) on the one hand, and the use of the state as the custodian of their respective human capital. While trade was affected (and sometimes severely) the organization of trade at its foundation was not. It will be re-arranged of course. That is the primary effect of the pandemic on globalization. But more importantly, it will be used (its principal significs) to reposition the state as the shepherd of human capital corralled and to be utilized within their respective pens. These pens, once known as states, now serve an additional and important purpose not for the greater glory of the state necessarily but rather as the middle managers of global production. Of course, the other effect of the pandemic will be to make clearer the differentiation in the character of that role between apex states, and those below them. It will be to their organization around vertically differentiated global production chains arranged around the new imperial centers, and the rules created to facilitate trade between these centers, that will likely mark the core transformations that the pandemic will leave in its wake.

B. COVID-19 and the Crisis of the Liberal Democratic Order.

Any approach to issues of “crisis” or “challenge” of the liberal democratic order is more usefully understood as a function of the larger movements exposed by the COVID-19 pandemic. At its simplest, the answer must be that any event of severe stress—like pandemic—will likely reveal the weaknesses (as well as the strengths) or dominant systems that order political-economic-societal life within vertically arranged hierarchies in which some elements are privileged, and others survive as they can. But that answer applies equally to all systems, not just liberal democratic systems. And, indeed, the pandemic illustrates, for those who care to observe, the way that the stress it produces reveals both strength and weakness in all systems.

However, it is important to look more closely at the way that the stress of pandemic might reveal deficiencies in powerful or powerfully influential systems. By 2019, it had become a cliché among important political sectors and the

intelligentsia that provided the foundations for their conclusions, that the post-1945 liberal democratic order and its manifestation in contemporary constitutional orders and the international framework of principles on which it was supposed to be based (or at least reflect) was either broken or in need of reform.¹⁷ Those at the margins of that discussion (Marxist-Leninist theorists, theocratic political-moral orders, so-called Third World and development oriented theorists) of course profited from that internal discussion.¹⁸ While many took that as a sign of the weakness of the system, for others, me included, it suggested an underlying strength. It suggested that the system was still quite “alive” in the sense that it was still the central element of the ordering of reality around which political-economic-societal systems could be ordered.

Enter the pandemic.¹⁹ An extraordinary entrance to be sure—in six months or so it has managed to sweep away much of the veiling behind which these discussions and battles for control of the “heart” of the system were taking place. And among those in the midst of the battling, it provided the signal—the sign—that they chose to interpret as permission to accelerate their move to seek control of the ordering norms of the system. It is in this sense that one might usefully understand the all too real view among virtually everyone about the deficiencies of the liberal democratic system as well as the way in which the pandemic provided the excuse necessary to reveal more publicly what was already well contested within the highest levels of the leadership of that system.

But it does not suggest the sort of fundamental deficiencies that might imperil the system. The opposite, I think, is true. In that light, the deficiencies must be understood within context. And that context can be divided into two parts. One context would examine the deficiencies of the liberal democratic order from the perspective and through the lens of the ordering

¹⁷ E.g. Peter S. Goodman, “The Post-World War II Order Is Under Assault From the Powers That Built It,” *The New York Times* (26 March 2018); available [https://www.nytimes.com/2018/03/26/business/nato-european-union.html].

¹⁸ E.g., Charles Gore, “The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries,” *World Development* 28(5):789-804 (2000).

¹⁹ Yen-Chin Liu, Rei-Lin Kuo, and Shin-Ru Shih, “COVID-19: The First Documented Coronavirus Pandemic in History,” *Biomedical Journal* 43(4):328-333 (2020).

principles of political-economic-moral systems fundamentally incompatible with those of the liberal democratic order. For this perspective there can be nothing but deficiency precisely because the making of meaning with respect to the most fundamental objects of social ordering are impossible to reconcile. They simply cannot see the same thing in the same way. From this perspective it is true, as the question suggests, that the pandemic highlights all of the critical failings of the democratic order—the hijacking public policy by private institutions, the sovereignty eroding effect of markets on policy, the inefficiencies of public organs subject to multiple layers of consultation and fractures of authority, and the paralysis inherent in systems in which power is both sharply held and the success of its execution widely dispersed.

In contrast to this outsider perspective analysis, an insider perspective might yield a different analysis. The insider perspective would examine the deficiencies of the liberal democratic order from one of two distinct analytical positions. The first would take as a given the soundness of the fundamental organizational principles of that order and focus instead on the deficiencies of its implementation. Those deficiencies might derive from system failures (e.g., the political institutions ought to be reformed to correctly reflect principle, or the law must be enforced in accordance with a correct application of principle, etc.). The second would focus on the need to reform or further develop but not reject) the fundamental ordering principles themselves. In the context of pandemic these might center on the division of authority between different levels of government, to the division of authority within a political institution. In the United States this translated into furious debates about the way that American federalism impeded or advanced the fight against the pandemic. But they might also center on the substance of the principles themselves—and these may then create a discursive space around corruption (e.g., should the state provide support for business or to working people? How should medical resources be rationed? To what extent may the state or private actors mandate personal behavior among the masses? And the like).

In the international sphere, these deficiencies are marked by the borderlands between public and private sectors which are evident in the organization of global production. Thus, for example, the need to impose a responsibility on

multinational enterprises for the effects of economic decisions taken in consequence of the pandemic that cause severe harm to local economies down their production chains. This has been particularly apparent in the context of the production of garments in which decisions taken by large Western multinational firms might severely affect the economic viability of states like Bangladesh.

Taken from this perspective, the usual reporting about winners and losers is stripped of much actual significance. The pandemic has not produced a list of winners and losers along the conflict binaries that were popular before the pandemic: the state versus the private sector; bureaucracy and planning versus the market; liberal democracy versus Marxist-Leninism; China versus the United States, etc. Much more interesting is the way that the intelligentsia and the political classes they serve have sought to develop a discourse around the pandemic that its critical signification is the way that it will decide or change the contours of battles for global leadership.²⁰

This is the sort of material one feeds mass opinion for the purpose of the propaganda wars that are an integral part of inter-systemic competition. They are important for the fury with which they are pursued, and their ability to sway common understanding. But they have very little to do with the actual movement of dominance under conditions in which no one system has emerged spotlessly triumphant. If the pandemic shows the world anything, it is that all systems under stress will have to change in light of their failures and will need to exploit those areas which showed each at their best.²¹

From that, the battles for control of global narrative, of leadership, and the like, will continue even as the character of the combatants necessarily changes. But those changes, again to underline the opening perspective, has little to do with the virus itself—it has everything to do with the way that people invest

²⁰ “The U.S.-China battle to control COVID-19 narrative — and blame,” PBS (22 April 2020); available [<https://www.pbs.org/newshour/show/the-u-s-china-battle-to-control-covid-19-narrative-and-blame>].

²¹ Jack Patrick Lewis, “New Zealand: A Model COVID-19 Response,” *Wickedlocal.com* “31 October 2020); available [<https://www.wickedlocal.com/story/country-gazette/2020/10/31/opinionlewis-new-zealand-model-covid-19-response/114595756/>].

these actions with meaning, and the extent to which such meaning is widely embraced. No magic here; and there is no organic progress toward triumph of one or another of the camps; it is all strategy, and work, and discipline, however those can be advanced within the rules of the respective “operating systems” of these actors.

C. The Character of the Post-Pandemic Global Order

At last, we come to the most profound question, but also the one that may be easiest to answer—at least in general terms. The changes suggested above are both broad and fundamental. They will likely produce structural and fundamental changes. While it is far too early to provide much detail, the changes may be sketched in broad outline.

First, the fundamental relationship between the individual and governing institutions will change in profound and quite noticeable ways. While it is likely that the discourse of personal liberty and of individual autonomy will not change in the short term, the application of those principles will change. The broad outlines of those changes are already apparent. The first cluster of changes revolve around the power to monitor. Surveillance will become central to the organization of society and the understanding of privacy will change to suit the need. This does not mean that there will not be opposition, indeed there will be, but that it is likely that the opposition will have an effect only at the margins.

In a sense this ought to come as a surprise to no one. All systems have embraced, some with enthusiasm, cultures of compliance and accountability for business and economic conduct.²² It is only a small step to transpose these now muscular cultural expectation around accountability to the individual. The framework around which accountability is driven is monitoring and reporting. It is grounded in data harvesting and in judgment manifested through data analytics. The rationale will be based on the protection of the individual, first; and then on the protection of society from individuals

²² As a small example, consider the American Law Institute’s project for a “Principles of the Law, Compliance, Risk Management, and Enforcement.” See American Law Institute, *Principles of the Law, Compliance, Risk Management, and Enforcement*, Tentative Draft No. 1 (Philadelphia, ALI, 2019).

whose conduct have (they always have) spillover effects. It will be difficult to resist this trajectory made more compelling in the shadow of pandemic. But surveillance will not mean merely the burden of being observed. As suggested above, it also implies the duty to account and to submit to systems of accountability. One sees this already in the systems developed in Israel and then Russia designed to track targeted individuals and then to warn others who might be exposed to them. It is seen in the way that Taiwan and South Korea have aligned their information systems for the purpose of surveillance with specific objectives (public health in this case) in mind. Even in the United States, the recent exposure of the way that large internet platforms (Google for example) to track people and to use that in the service of the police power in a crisis reveals the extent to which such surveillance is already normalized. Its rationalization remains at the earliest stages of development.

Second, the scope of governmental authority will likely change. It is difficult, though to predict the direction of that change and it is likely to be highly contextual. Part will depend on the way in which a system disperses power between its public and private organs. But the character of that power will change as well. There will likely be an acceleration of the trend, already quite evident in most systems of moving away from the increasingly primitive view of government as actually managed by high (sometimes elected) officials in which the issues revolve around the exercise of sovereign executive, legislative and judicial power (however arranged) to a system that is centered on administration by managers.

The bureaucratization²³ of all aspects of life actually signals the movement of power from the political to the managerial elements of institutions. The pandemic revealed in all its majesty that the state and its principles are captive to the administrator, to the technician, to the field expert, and to those who design and operate systems that connect policy to implementation. States that expose that connection tend to do well; states that seek to suppress this trajectory by muzzling or sidelining their technocrats often find themselves criticized and their efforts undermined.

²³ Cf., Henry Jacoby, *The Bureaucratization of the World* ((Evelyn Kanes (trans), University of California Press, 1973) ; S.N. Eisenstadt, "Bureaucracy and Bureaucratization," *Current Sociology* 7(2):99-124 (1958).

Third, the nature of borders will change. As mentioned in more detail above, borders will indeed matter more for the control of people. At the same time, they will matter less for the organization of economic activity. At the same time, the nature of the porosity for economic activity will depend on the alignment of particular states within clusters of states organized around a vanguard state. The result, of course, is a fundamental reorganization of globalization. But this is unpalatable. So, expect that these changes will occur without much comment. Expect as well that those at the forefront of change will reject any notion that they are changing anything. And expect as well that eventually the principles of globalization will be re-interpreted to provide the discursive basis for legitimating the new global organization of economic activity.

Fourth, few people speak to international financial institutions and their role in the post COVID-19 world. That is a pity. Largely left behind, perhaps as a matter of policy, perhaps because their bureaucratic girth makes nimble movement difficult, it is possible that the role of IFIs will be changed. On the one hand, in the middle term public IFIs may become a useful tool for the implementation of normalized expectations for national shepherding of their populations to ensure maximum productivity (and thus maximum contribution, in the aggregate, to collective wealth). Loan conditionality, technical assistance and the like, the now ancient tools of international financial institution (IFI) management of states can be used to those ends.²⁴ But that requires consensus about what exactly is to be expected of states. That latter project will likely provide a window in the contests for global control of narrative among the US-China-EU with second order powers working furiously at the margins. Irrespective of the way that it is resolved, the application of the fundamental principles of animal husbandry through the language of rights will likely grow.

²⁴ E.g., International Monetary Fund, "IMF Conditionality," Factsheet (30 March 2020); available [https://www.imf.org/en/About/Factsheets/Sheets/2016/08/02/21/28/IMF-Conditionality]; Lee Mizell, *Conditionality in Practice: Emerging Lessons for Public Investment* (Paris: OECD, 2017); available [https://www.oecd.org/cfe/regionaldevelopment/Mizell_Conditionalities_Emerging-lessons-for-public-investment.pdf].

Fifth, the discourse of migration, as well as its management, are likely to change. One of the peculiar consequences of the pandemic, already much noted, has been the way that states, without much resistance, were able to reconstitute their borders for the protection of their populations. But borders are tools with a rich palette of uses—even if only directed against people. While it is unlikely that the discourse of migration will change much in the short term, it is possible that the management of migration—especially where it can be reconstituted as the movement of peoples (collective movement) rather than the product of individual circumstances—may begin to assume a different form, and one that is more restrictive. At the same time, this broader movement will be masked by wide variations among states, given their national challenges. More interesting will be the extent to which migration becomes a challenge more among states with vulnerable populations, than of migration between the periphery and the “metropolis.”

Sixth, the nature of the police power will likely change as well. It is likely that the future of power will be shaped as much by models based on data analytics, as it will be founded on the application of principles and human judgment. Machine learning and modelling has driven the response to COVID-19 irrespective of the political-economic or moral model to which the responding state adheres. The human factors has been disappearing from the development of approaches to protecting the human factor in societal organization. One speaks here to “at risk” populations, to the science of transmission, to predictive analytics. One speaks here to the use of analysis to align health, sustainability, economic and political consequences in ways that maximize the objectives of those applying the analytics. One sees, in the end, the emerge of automated management as the principal consequence and effect of the pandemic on the way in which the global order is conceived and managed. In the future it is as likely that contests for power will be between distinctive approaches to data analytics, and the effectiveness of the algorithms used to provide incentives and punishments than it will be about the underlying principles around which society—even global society—is ordered.

3. *Origin Stories and Control of the Narrative of COVID-19.*

A. COVID-19 Meaning Making—the Contest Over Control of COVID-19 Origin Stories and Its Consequences.

Origin stories²⁵ have always been important in the organization and disciplining of human society. Their object was in large measure to “inculcate belief; and in salient instances their effectiveness was such that they determined the form and content of the most profound personal experiences.”²⁶ In many cases they serve to construct and differentiate one community from another. In the process they also can be absorbed, and so absorbed incorporated in distinguishing myth making; they serve as the shaping force of civilization as lived experience conscious of the lived experiences of others.”²⁷ They also tend to embed the core founding ideological premises that define a society as autonomous and distinguishable from another. In periods of great convergence--which was the essential marker of globalization in its first phase (1945-2016)--such origin stories diminish in importance as a border of autonomy and serve more as a distinguishing element of “voice” by a community participating in the greater communities of peoples all engaged in the development of common positions and consensus.²⁸

Conversely, where fracture becomes a political or cultural ideal, origin stories become a critical element in enhancing detachment. That detachment is inherent in a political project that is grounded on enhancing the identity between communal autonomy (peoplehood) and the erection of borders. This is the positive and normative objective of origin stories. These are almost always bound up in stories of the creation of the world--with world understood as the space

²⁵ See, e.g., David Christian, *Origin Story: A Big History of Everything* (NY: Little, Brown Spark, 2018); Joanne H. Wright, *Origin Stories in Political Thought: Discourses on Gender, Power, and Citizenship* (University of Toronto Press, 2004); David M. Engel, “Origin Myths: Narratives of Authority, Resistance, Disability, and Law,” *Law and Society Review* 27:785-826 (1993).

²⁶ Joseph Campbell, *The Masks of God: Creative Mythology* (Penguin 1968) p. 85.

²⁷ Oswald Spengler, *The Decline of the West* (NY: Alfred A. Knopf, 1928) Vol. II, p. 78.

²⁸ But *ibid.*, Vol. II, p. 55 (“it is not products that ‘influence’, but creators that ‘absorb.’”).

within which a self-referencing community comes to know itself and its place within the space allotted to it.

As important, origin stories might also serve as part of a moral project, or they serve to develop not just the identity of the community (as the "other" in a world of communities) but to situate that "otherness" within a spectrum of moral values in which the community itself is identified with the incarnation of the "good" the goodness of which can be measured against the incarnation of its opposite. The remnants of post Temple Jewish communities as the bad end of the moral spectrum in which the community of Christians occupied the idealized space of the good at the time both were competing around the Mediterranean for control of the narrative of the "true" post-Temple Jewish faith, is an excellent example.

Origin stories of both types continue to serve politics in the 21st century (though the stakes are far more pathetic and they tend to resemble the court intrigues of Ming era eunuch politics, or those of the Ancien Regime aristocratic court). Especially potent are those origin stories that serve a moral purpose--that is that reinforce the notion of the "goodness" of a community measured against the "evil" of another. It appears that the officials who occupy middling positions within the self-reflexive bureaucracies of powerful states appear unable to resist the temptation to use origin stories--especially origin stories with a moral element--in the hurley burley of political competition in the middle of a global crisis.

The recent distraction, coming in equal measure from Beijing and Washington, and fanned by the hangers on (academic, press, and others) who seek personal advantage through the deployment of these cultural tropes irrespective of the greater damage they may do to their respective governments and without a care for the way they betray the fundamental political principles of their respective systems, have taken up a certain substantial amount of time from the primary task of meeting the threat posed by the COVID-19 pandemic.

One does not here refer to the childish diversion of the origins name of the disease with respect to which no more space

than this is wasted.²⁹ Rather I speak to the much more potent, and derivative, battle that followed the conflict over "names" and evolving as if taken from the text of a third rate novella, of the assertion that COVID-19 was manufactured either in a Chinese or a US lab, and from there released onto the world.³⁰ Here one has a powerful example of a morally driven origin story, the object of which is to buttress the unstated but underlying notion that two distinct communities exist, and that in nice Manichean style, one represents (and defines the "good" and the other--not so much. Here one references the origins of COVID-19 as a metaphor for the moral condition of the two societies.

²⁹ See, e.g., Lily Kuo, "Trump Spars Anger by Calling Coronavirus the 'Chinese Virus,'" *The Guardian* (17 March 2020); available [<https://www.theguardian.com/world/2020/mar/17/trump-calls-covid-19-the-chinese-virus-as-rift-with-coronavirus-beijing-escalates>]; Sally Satel, "Inside the Controversy Over the 'Chinese Virus,'" *National Review* (23 March 2020); available [<https://www.nationalreview.com/2020/03/inside-the-controversy-over-the-chinese-virus/>]; David Brennan, "China Responds to Trump 'Chinese Virus' Tweet, Urges America to Stop This 'Despicable Practice'," *Newsweek* (17 March 2020); available [<https://www.newsweek.com/china-responds-donald-trump-chinese-virus-tweet-urges-america-stop-despicable-practice-1492674>].

³⁰ See, e.g., Henry Austin and Alexander Smith, "Coronavirus: Chinese official suggests U.S. Army to blame for outbreak: 'It might be U.S. army who brought the epidemic to Wuhan,'" tweeted Zhao Lijian. "Be transparent! Make public your data! U.S. owe us an explanation!," *NBC News* (13 March 2020); available [<https://www.nbcnews.com/news/world/coronavirus-chinese-official-suggests-u-s-army-blame-outbreak-n1157826>]; Ben Westcott and Steven Jiang, "Chinese diplomat promotes conspiracy theory that US military brought coronavirus to Wuhan," *CNN* (13 March 2020); available [<https://www.cnn.com/2020/03/13/asia/china-coronavirus-us-lijian-zhao-intl-hnk/index.html>]; Molly Stellino, "Fact check: Coronavirus not man-made or engineered but its origin remains unclear," *USA Today* (21 March 2020); available [<https://www.usatoday.com/story/news/factcheck/2020/03/21/fact-check-did-coronavirus-originate-chinese-laboratory/2881150001/>]; Matt Shulman, "Judicial Watch Founder Sues Chinese Gov't Over 'Bioweapon' COVID-19," *TPM* (18 March 2020); available [<https://talkingpointsmemo.com/news/judicial-watch-freedom-watch-larry-klayman-lawsuit-china-covid-19-coronavirus-bioweapon-wuhan-lab>]; but see Jon Cohen, "Scientists 'strongly condemn' rumors and conspiracy theories about origin of coronavirus outbreak," *Science* (19 Feb. 2020); available [<https://www.sciencemag.org/news/2020/02/scientists-strongly-condemn-rumors-and-conspiracy-theories-about-origin-coronavirus>].

That battle and its political ramifications for geopolitics,³¹ for the control of the narrative of the pandemic, for the use of the pandemic as affirmation of political or cultural legitimacy, etc.³² if fairly uninteresting, except for those in the business of managing story lines for specific objectives. But there is neither subtlety nor deep value in that exercise--except among technicians. It is not for nothing, then, that the Press and social media, apparently with little other news to report, has been cultivating this tempest in a teapot in a sort of ironic complicity with the propaganda departments of the combatants.

Let one instead consider an eddy in these politics that ought to be of more interest and greater value. I refer the extraordinary efforts, by the American press to manufacture a rift within the Chinese administrator class respecting either the value of pressing the "US labs created COVID-19" line or its validity. As reported by Bloomberg:

An unusual public spat between two top Chinese diplomats points to an internal split in Beijing over how to handle rising tensions with a combative U.S. president. The differences spilled into public view Monday after China's ambassador to the U.S. reaffirmed his opposition to promoting theories that the virus that causes Covid-19 originated in an American military lab. Ambassador Cui Tiankai said in an interview with "Axios on HBO" that he stood by his Feb. 9 statement that it would be "crazy" to spread such theories, even though a foreign ministry spokesman has repeatedly floated the idea on Twitter in recent weeks.³³

³¹ Ryan Pickrell, "Chinese foreign ministry spokesman pushes coronavirus conspiracy theory that the US Army 'brought the epidemic to Wuhan'," *Business Insider* (14 March 2020); available [<https://www.businessinsider.com/chinese-official-says-us-army-maybe-brought-coronavirus-to-wuhan-2020-3>].

³² Matt Field, "Why do politicians keep breathing life into the false conspiracy theory that the coronavirus is a bioweapon?," *The Bulletin of the Atomic Scientists* (19 March 2020); available [<https://thebulletin.org/2020/03/why-do-politicians-keep-breathing-life-into-the-false-conspiracy-theory-that-the-coronavirus-is-a-bioweapon/#>]; Lisa Winter, "Chinese Officials Blame US Army for Coronavirus," *The Scientist* (13 arch 2020); available [<https://www.the-scientist.com/news-opinion/chinese-officials-blame-us-army-for-coronavirus-67267>].

³³ "Rare Spat Between Chinese Diplomats Signals Split Over Trump," *Bloomberg News* (22 March 2020); available

What makes this story interesting--at least from the context of the West where it is getting some play--centers on the way in which an origin story can be used to invert the trajectory of morality. What is attempted here is to manufacture conflict within the story-telling community, and then to turn that into a story of the origin of weakness in the storytelling country. That is, in this case, the origin story coming from certain sectors of the Chinese bureaucracy (e.g., that the US produced and released COVID-19)³⁴ because it is publicly contested either evidences a rift within the ruling collective or suggests contention over the forms and manifestation of foreign policy³⁵ that evidences the weakness of the ruling collective and immorality of the story.

And yet it is not entirely clear that their either is a rift, or that the disagreement is merely a quite elegant effort to manage response among the masses in the US. The origin story in China remains as vibrant as ever for the consumption of Chinese mass opinion. But that is its function as a moral value origin story. On the other hand, its utility when projected toward the object of constructed evil is more problematic. Thus, the decision for the Chinese Ambassador to the US to grant an interview, and to grant it to Axios,³⁶ takes on a quite distinct hue.

In a rare interview, China's ambassador to the United States, Cui Tiankai, told "Axios on HBO" that he stands by his belief that it's "crazy" to spread rumors about the coronavirus originating from a military laboratory in the United States. Why it matters: Cui called this exact conspiracy theory "crazy" more than a month ago on CBS' "Face the Nation." But that was before the

[<https://www.bloomberg.com/news/articles/2020-03-23/china-s-top-envoy-to-u-s-breaks-with-foreign-ministry-on-virus>].

³⁴ Jerry Dunleavy, "Chinese diplomat amplifies coronavirus conspiracy blaming US military after State Department rebukes," *The Washington Examiner* (17 March 2020); available [<https://www.washingtonexaminer.com/news/chinese-diplomat-amplifies-coronavirus-conspiracy-blaming-us-military-after-state-department-rebukes>].

³⁵ "Rare Spat Between Chinese Diplomats Signals Split Over Trump," *supra*.

³⁶ See Axios, "Our Mission," available [<https://www.axios.com/about>] ("we've engineered Axios around a simple proposition — deliver the clearest, smartest, most efficient and trustworthy experience for audience and advertisers alike")

spokesperson for the Chinese Ministry of Foreign Affairs, Zhao Lijian, began publicly promoting the conspiracy.³⁷

A key exchange occurs early in the interview where the Ambassador confirms his view earlier expressed publicly that stories of the origins of COVID-19 in a US military lab were crazy.³⁸

Amb. Cui Tiankai [15:36:26] That was my position then and that's my position now. I think these questions, of course, we have to find eventually we must have an answer to where the virus eventually came from. But this is the job of the scientists to do, not for diplomats, not for journalists to speculate. Because such speculation will help nobody. It's very harmful. . .

Jonathan Swan [15:37:00] Well, it's good to hear you say that Mr. Ambassador, because it is actually your own spokesman, the spokesman for the Chinese Ministry of Foreign Affairs, Zhao Lijian, who has been spreading the conspiracy that the virus originated in a US laboratory. Does he have any evidence to support that theory?

Amb. Cui Tiankai [15:37:18] Maybe you could go and ask him.³⁹

But of course there is much meaning embedded here. Beyond the usual diplomatic slipperiness, the origin story here could expose much more than efforts at narrative control. For

³⁷ Jonathan Swan, Bethany Allen-Ebrahimian, "Top Chinese official disowns U.S. military lab coronavirus conspiracy," *Axios* (22 March 2020); available [https://www.axios.com/china-coronavirus-ambassador-cui-tiankai-1b0404e8-026d-4b7d-8290-98076f95df14.html]. On the efforts by the Chinese Foreign Ministry, see, Jason Scott and Iain Marlow, "Chinese Official Pushes Conspiracy Theory U.S. Spread Virus," *Bloomberg* (12 March 2020); available [https://www.bloomberg.com/news/articles/2020-03-13/chinese-official-pushes-conspiracy-theory-u-s-army-behind-virus].

³⁸ The interview transcript may be accessed at Jonathan Swan, Bethany Allen-Ebrahimian, "Top Chinese official disowns U.S. military lab coronavirus conspiracy," *Axios* (22 March 2020); available [https://www.axios.com/china-coronavirus-ambassador-cui-tiankai-1b0404e8-026d-4b7d-8290-98076f95df14.html].

³⁹ *Ibid.*

example, consider the challenge were it determined that the virus did indeed originate in a US military lab, but that the precipitating cause the virus became active only after it had been stolen from the US and sent for study to Chinese state labs? The metamorphosis of origin stories, and the meanings they permit, may not be entirely controllable. But one can decide for oneself.

B. US – China Dueling Origin Narratives.

It thus appears that, even in the midst of substantial human suffering, there is always time for propaganda and propaganda wars. The extraordinary narcissism of nations, taxed almost to the limits of their capacity to respond to the pandemic, devoting substantial resources to the spinning of propaganda with the objective of producing narratives of their respective greater glory, has now become an essential feature of the battles that later generations will come to understand as the COVID-19 wars.

Thus it is that one finds oneself assaulted by the simultaneous self-aggrandizing and heroic efforts of three leading political authorities to control the narrative of COVID-19 origin stories.⁴⁰ At the same time--and as the complicit, pandering, and enabling media institutions suggest--these heroic efforts extend to the role of each of these states as the leading global force for the defeat of the pandemic. The stakes are high, at least as measured by the lusts of the propaganda ministries of these states. The state that can claim the leading role in the glorious defeat of the plague believes that it can, at the same time, claim that the defeat reveals some sort of divine sign of the "worthiness" of the political apparatus and normative structures of the "victorious" state. The stage on which these performances for mass consumption are undertaken reflect the logic of the institutional apparatus of each of these states.

⁴⁰ Discussed earlier, see, Larry Catá Backer for the Coalition for Peace & Ethics, "Origin Stories and COVID-19: The Value of Stories of the Lab Created Origins of COVID-19," *Law at the End of the Day* (23 arch 2020). Available [https://lcbackerblog.blogspot.com/2020/03/origin-stories-and-covid-19-value-of.html].

Even to state these suppositions, the "rules" of the "game" that these states now indulge is to suggest the underlying buffoonery at the heart of these antics--but when coupled with the real consequences of the pandemic is assumes a much more macabre shading. Some brief reflections on this theme follow.

The self-serving excesses of state organs in time of pandemic recalls other instances of bizarre (and after the fact) pathetic behaviors of people during times of plague.

"In fact, chronicles from the 14th to 16th centuries are full of reports of people across central Europe being seized by a compulsion to dance – and doing so in their hundreds, sometimes until they dropped dead from exhaustion . . . In fact, chronicles from the 14th to 16th centuries are full of reports of people across central Europe being seized by a compulsion to dance – and doing so in their hundreds, sometimes until they dropped dead from exhaustion. Saint John's Dance, as this phenomenon is known (due to the fact that people often called out the name of John the Baptist as they cavorted), traumatised onlookers and triggered a fearsome backlash from a horrified, confused clergy."⁴¹

China, the United States and the European Union are even now dancing and shouting through the global streets at the feet of statues of themselves as the incarnation of a self-reflexive *summum bonum*.⁴² If the analogy holds, each will continue to do so, in their respective madness, until overcome and exhausted from their respective and sterile self-pleasuring they might thereafter return with greater intensity to the fruitful task of caring for their respective masses. But each worships a different god--as manifested in itself. And that makes this dance macabre transform itself from bathos to pathos. For it is in the dueling banjos aspect of these dances--of each of these mad dancers

⁴¹ Helen Carr, "The medieval dance of death," *History Extra* (2017) available <https://www.historyextra.com/period/medieval/the-medieval-dance-of-death/>; the article was first published in BBC History Magazine (December 2017).

⁴² For a brief introduction to the notion in philosophy, see Greg Ciliberti, "The summum bonum (highest good)," *Philosophical Guidance* (23 January 2020) available [<http://philosophicalguidance.com/2019/01/23/the-summum-bonum-highest-good/>].

gyrating to the tunes stuck in their heads--that one understands COVID-19 as a manifestation of an ideological opportunity. But more than that, as the way in which each of these states begins to conceive of the COVID-19 plague as some sort of divine test, victory over which will secure the divinely touched legitimacy of the political-economic model (and of the leadership of the governing core). Internal victory must then be manifested in some sort of internationalism in which the vindicated state system is offered as a "light onto the world."⁴³

Were each of these states engaged in a solitary project of narrative building, one might wonder at the effort, but leave things to individual idiosyncrasy. The problem, however, is that these are not strategies for internal development. Rather, they appear to serve as means of capitalizing on the COVID-19 plague itself to advance national political agendas. That advancement has several objectives.

The first is to convince domestic masses that the COVID-19 plague is not a judgement of the heavens, an indictment of the contemporary political-economic system and of its leaders. That requires the construction of an internal narrative (1) to show either that the plague is not a divine sign (e.g., the Chinese efforts to blame the U.S. for the plague rather than "nature"), or (2) that it is not a judgment of legitimacy but rather a test of the power of the system itself in which victory against the plague would serve to cement the internal legitimacy of the political economic model (e.g., the efforts of President Trump to avoid the invocation of the Defense Production Act in favor of encouraging public private partners to overcome the plague).

The second, is to convince external audiences (the masses and their elites in liberal democracies, the ruling elites elsewhere) that there is an identity between the political-economic model of a leading state and success (as a function of the expenditure of resources and the loss of life) in vanquishing the COVID-19 plague. This has been a position taken both by the Chinese and the American leadership--but to very different ends. In each case, the character of the response was tightly aligned with the political-economic model. In both cases the resulting

⁴³ Matthew 5:14-16 King James Version (KJV) ("14 Ye are the light of the world. A city that is set on an hill cannot be hid").

responses served as proof of the strength and inherent legitimacy of the political-economic model. But it has an additional purpose, and one that serves as the foundation for much of the invective of this essay. The purpose is this: having turned national response into a vindication of an ideologically framed political-economic model, it becomes necessary to protect that narrative from critique or challenge. That, in turn produces two types of responses. The first is to frame national narrative against a narrative of the failures of rivals. The second is to frame the virus itself as a manifestation of the illegitimacy, of the sickness, that is the rival system.

And that is what is the most interesting fight over the question of controlling narrative. This is not merely a question of system validation. Rather, it is the use of the plague itself--of its character as a disease that kills--as the representation of the character of the system against which it is deployed. To control narrative, then, can be measured by the extent to which it is possible to convince people that COVID-19, as illness, as plague, as disruptive force, is little more than the incarnation of the true character of the United States, or of China. ,

Both the U.S. and Chinese governments have passed blame back and forth. U.S. officials, including Secretary of State Mike Pompeo and President Donald Trump himself, have upped their use of the terms "Chinese virus" and "Wuhan virus," framing the outbreak as a Chinese issue. Pompeo urged G-7 leaders to adopt the language, as well, according to a report from the German magazine *Der Spiegel*. They've also accused Beijing of withholding information. Similarly, Chinese officials have regularly criticized the U.S. handling of the virus and played up America's failures around the outbreak, in addition to expelling American journalists and perpetuating the Army conspiracy.⁴⁴

⁴⁴ Kimmy Yam, "House members introduce resolution to pin coronavirus blame on China," NBC News (25 March 2020) available [https://www.nbcnews.com/news/asian-america/house-members-introduce-resolution-pin-coronavirus-blame-china-n1169051?cid=sm_npd_nn_fb_ma]. See also J. Edward Moreno, "Pompeo Pressed G-7 Leaders to Refer to 'Wuhan Virus' in Statement: Report," *The Hill* (25 March 2020); available [<https://thehill.com/policy/international/489484-pompeo-pressed-g7-leaders-to-refer-to-wuhan-virus-in-statement-report>].

The European Union itself has sought to push back on narrative that disturbs its own.

In an unusual choice of language, the bloc's foreign policy chief Josep Borrell called on EU countries to stand ready for a "struggle for influence" in a "global battle of narratives". . . . "There is a global battle of narratives going on in which timing is a crucial factor," he said, noting that the focus had shifted from Europe helping China to the other way round. "China is aggressively pushing the message that, unlike the US, it is a responsible and reliable partner. "In the battle of narratives we have also seen attempts to discredit the EU as such and some instances where Europeans have been stigmatised as if all were carriers of the virus. "The point for Europe is this: we can be sure that perceptions will change again as the outbreak and our response to it evolves. But we must be aware there is a geopolitical component including a struggle for influence through spinning and the 'politics of generosity'," Borrell said.⁴⁵

In this context, it becomes clearer why it is that both superpowers have expended so many resources, and why their media apparatus (public and private, directly or indirectly) have been so eagerly complicit in expanding this battle (for example Secretary Pompeo's efforts at the G7 meeting on 26 March 2020 to align EU states against the Chinese and "their" "Wuhan Virus").⁴⁶ It also explains the intensity of responses to assertions by either side of this effort to conflate COVID-19 with the essence of the Chinese or the American way of life. That the entire exercise is unnecessary and a distraction is beyond question. That it evidences the problem of internal control of factions in times of crisis, leaving core leadership little space for de-escalation. And even the effort to contest efforts by each side to paint the other as the disease behind the epidemic itself underlines the fundamental ideological battle the contest

⁴⁵ , "EU fires warning shot at China in coronavirus battle of the narratives," *South China Morning Post* (24 March 2020) available [<https://www.scmp.com/news/china/diplomacy/article/3076728/eu-fires-warning-shot-china-coronavirus-battle-narratives>.]

⁴⁶ Shaun Tandon, "Pompeo attacks Chinese virus campaign at G7 as Europeans seek cooperation," *Yahoo News* (26 March 2020) available [<https://news.yahoo.com/pompeo-says-g7-agrees-china-spreading-virus-disinformation-164946927.html>].

represents. The little skirmish around a Danish satirical cartoon nicely frames the context and the quantum of distraction that these elite battles over “authorized” versions of discourse pose for COVID-19 measures.

“The paper previously caused a stir in 2005 when it published twelve cartoons depicting the central prophet of Islam, Mohammad. Editor-in-chief Jacob Nybroe said the point of the cartoon was not to make fun of China and added that the newspaper is not considering apologizing for something it does not believe is wrong. “As far as I can see, we are dealing with two different cultural views,” Nybroe wrote in the paper. . . He added he did not feel the cartoon violated Danish law. . . As of Thursday, the paper had maintained its position and not issued an apology. However, it did publish an opinion from Feng Tie, China’s ambassador to Denmark, arguing why he believed it was wrong and offensive to publish the cartoon.”⁴⁷

The Deutsche Welle article also noted that the irresistible impulse to respond in kind. “So far, the Chinese have responded by denigrating the Danish flag and circulating images online depicting it with swastikas, sanitary towels and as a coffin.”⁴⁸ The scuffle reminds people of the obvious: that liberal democratic and Marxist-Leninist systems are founded on different sensibilities, and different ways of looking at the world, that both have insisted on their missionary role in the world (Marxist and liberal democratic internationalism), and that both immorally see in every crisis an opportunity not merely to meet the crisis but to use it in furtherance of their missions to spread the gospel of their supremacy, legitimacy, and authority to impose their own sensibilities on both the willing and unwilling masses. One ought to have no quibble about these titanic contests over narrative—certainly these have gone on in contemporary forms since the consolidation of Western (Roman) and Asian (Han dynasty consolidation) around the

⁴⁷ “China angry over coronavirus cartoon in Danish newspaper,” Deutsche Welle available <https://www.dw.com/en/china-angry-over-coronavirus-cartoon-in-danish-newspaper/a-52196383> (internal cite to “Mohammed cartoons have lasting effect,” DW available [<https://www.dw.com/en/mohammed-cartoons-have-lasting-effect/a-15878492>]).

⁴⁸ “China angry over coronavirus cartoon in Danish newspaper,” *supra*.

time that Jesus of Nazareth walked the Earth. Yet their human costs in the shadow of pandemic ought to give pause as to the cost of these impulses in context.

Plague is not the only instance in which political societies seek to conflate disease or moral disorder with the political weakness of a rival.⁴⁹ And it is here that one hears the strains of the dueling banjos playing the music of the *dance macabre* which both states appear to be unable to resist. There is little to say about the global campaigns of both states to blame the other for the manufacture of the plague, or to the laxity or cultural failings that led to its spread. Both seek to play the basest--but usually most effective--tune to inflame mass opinion, conflating the plague with military objectives that seek to destabilize the other state. These are effective though pathetic in the most basic sense of that term (to cause suffering or calamity).

More interesting, however, is the popular expression of this dueling banjos tune when the door is opened by the state--the Chinese and American efforts of (private) elements to seek to assert legal claims against the government of the other for plague related damages. It is here that states indulge their love of *opera buffa* the principal requirements of which have always been clear diction and a facility with patter. That is evident from both Chinese⁵⁰ and US⁵¹ efforts. A publicity stunt?--of course; a sign (in the semiotic sense) of the popularization of the narrative at play in this contest among great powers?--certainly.

⁴⁹ For a discussion in the context of the conflation of sexual, religious, and moral behavior, and the alignment of corruption that follows from breach of each, see, Larry Catá Backer, "Emasculated Men, Effeminate Law in the United States, Zimbabwe and Malaysia," *Yale Journal of Law and Feminism* 17(1);1-63 (2005) available [https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1220&context=yjlf].

⁵⁰ 反击！中国律师对美总统发出律师函：必须向全国 14 亿人道歉 中创法律人 (25 March 2020), available [https://mp.weixin.qq.com/s/9DLXfeQr5mzEpxp20rjWOW].

⁵¹ Logan Alters et al. v. People's Republic of China, Case 1:20-cv-21108-UU (S.D.FI) (13 March 2020) available [https://images.law.com/contrib/content/uploads/documents/392/85094/Coronavirus-China-class-action.pdf]; discussed in Amanda Bronstad, "Class Action Filed Against China Over COVID-19 Outbreak," *Law.com* (13 March 2020) available [https://www.law.com/dailybusinessreview/2020/03/13/class-action-filed-against-china-over-covid-19-outbreak/].

In the end, however, one is left empty. The great battles--and the national resources devoted to them--over the characterization of the plague suggests one of the more unsavory elements of the COVID-19 crisis. That is the irresistible temptation for states to use the plague not just to further their own interests but also to reaffirm (or perhaps to reassure themselves) of the value and legitimacy of their political-economic model.

4. The Moral Testing of COVID-19.

Societies pride themselves on their morals. All societies have them; sometimes they just don't align either among societies or between the expression of morals and their practice. COVID-19 has tested social morals—or at least the extent to which societies are willing to make good on their abstract expression. In the process, it is worth considering whether morals and the moral order emerges from COVID-19 in an altered state.

A. COVID-19 and the Aged; Cruelty and Hard Choices in Times of Stress.

Care homes have seen appalling outbreaks leading to a collapse in staffing. In Europe, the military was called in to help at retirement homes and found elderly patients abandoned and, in some cases, dead in their beds. In two facilities alone there are reports of almost 90 deaths linked to the crisis.⁵² In New York, "Gov. Andrew Cuomo denied . . . that his state Health Department's controversial March 25 order saying nursing homes could not bar admission or readmission to a resident based on a positive COVID-19 test had anything to do with the over 6,500 deaths in those facilities related to the virus."⁵³

The issue of the relationship of the elderly and the COVID-19 pandemic is remarkable both for the focus of its coverage, and for the indifference of that coverage, with the fate

⁵² "Coronavirus: Europe's care homes struggle as deaths rise," *BBC News*; available [<https://www.bbc.com/news/world-europe-52147861>].

⁵³ Bernadette Hogan, "It Never Happened': Cuomo Denies Causing 6,500 Nursing Home Deaths," *The New York Post* (2 Oct. 2020); available [<https://nypost.com/2020/10/02/it-never-happened-gov-cuomo-denies-causing-nursing-home-deaths/>].

of the elderly in the shadow of pandemic. The character of that coverage, as well as the necessity of that indifference appears over and over: "The sister of one resident told local media that the home's managers had been pleading for tests to be carried out and it was only after someone died that they took notice" (Ibid.). That indifference is culturally driven. Indeed, it is the cultural inevitability that makes the coverage both horrifying and inevitable--and therefore likely to be displaced especially as society confronts epidemic in which death is infused in all of the calculus of societal responses. Re-cast in other terms (since it appears that all cultures share this view even as it is expressed through different practices)--indifference is grounded in an almost universal acceptance of the premise that the old must die, and that they be counted on to die sooner than those who are younger.

That sounds silly at first; yet it is a powerful ordering principle of society--and of medicine. Inherent in that premise is the powerful cultural signifier of "counting," of the ability to predict and thus order (and if necessary intervene to enhance) the underlying premise of an order to death grounded on age. But it is more than that, it is also attached to another cultural premise--that of the alignment between value (personal and societal) and age. If, as Pythagoras suggested, mankind is the measure of all things,⁵⁴ then the yardstick against which that measure is taken for each individual is notched with the anniversaries of birth.

Inherent then in the cultural calculus of the value of an individual is the reduction of that person to a fixed sum. It is the measure of that sum, then, that determines the extent to which a society might feel obligated to an individual (society calculates the "profit" to be made by such exchange in terms of the social costs versus the individual's value to society). This calculus is applied with a vengeance in crisis (e.g., "women and children first," etc.). That also sounds cruel. But societies that trade obligation for the value of the individual is common enough in the history of human organization.

⁵⁴ See Joshua Mark, "Protagoras of Abdera: Of All Things Man Is The Measure," *Ancient History Encyclopedia* (18 Jan 2012); available [<https://www.ancient.eu/article/61/protagoras-of-abdera-of-all-things-man-is-the-meas/>].

What enhances the cruelty are the means by which that assessment is implemented by a society in crisis. It is then that the true meanness of spirit of a society is revealed, and where cruelty is extended not merely to the act of valuation (and its consequences), but to the extent of the indifference to the pain (individual and collective, physical and mental) the implementation of these choices produce. The cruelty with which societies, especially when beset by pandemic, embeds that notion almost casually in law, in administrative practice, and in the way that social actors approach the way it "deals" with the elderly, more truly exposes the real meaning (and the valuation) of human dignity than all of the pieties with which its elites drive cultural narrative.

Let one consider post considers the cruelty inherent in submerged but operative principles of how human societies value human lives and what that produces in times of stress. More significantly, it suggests the way in which these measures, enhanced by law and regulation, produce a halo of cruelty that substantially undermines the way in which the principle of human dignity is itself undermined in fundamental ways. These very preliminary thoughts are wrapped around a recent Appeal issued by Rosa Kornfeld-Matte (Chile)⁵⁵ the first Independent Expert on the enjoyment of all human rights by older persons.

The treatment of the elderly has always been subsumed within the core principles that one of the ultimate consequences of age is death. As a consequence, the elderly are, as they age, increasing consumers of medical services with increasingly small returns (if, as societies tend to do, is such returns are measured by length and quality of life after treatment).⁵⁶ The

⁵⁵ "The Independent Expert on the enjoyment of all human rights by older persons," UN Human Rights; available [https://www.ohchr.org/EN/Issues/OlderPersons/IE/Pages/IEOlderPersons.aspx].

⁵⁶ R. Jaziri and S. Alnahadi, "Choosing which COVID-19 patient to save? The ethical triage and rationing dilemma," *Ethics, Medicine, and Public Health* 15 (2020); available [https://www.sciencedirect.com/science/article/pii/S2352552520301080]; Douglas B. White, Bernard Lo, "A Framework for Rationing Ventilators and Critical Care Beds During the COVID-19 Pandemic," *JAMA* 323(18):1773-1774 (27 March 2020); available [https://jamanetwork.com/journals/jama/article-abstract/2763953]. There is a rich literature that seeks to value the elderly, and one that, in

COVID-19 pandemic has merely exposed what had been an underlying set of principles in its most harsh application:.

Consider its exposure by the Italian College of Anesthesia, Analgesia, Resuscitation and Intensive Care (SIAARTI). Their Guidelines⁵⁷

The document begins by likening the moral choices Italian doctors may face to the forms of wartime triage that are required in the field of “catastrophe medicine.” Instead of providing intensive care to all patients who need it, the authors suggest, it may become necessary to follow “the most widely shared criteria regarding distributive justice and the appropriate allocation of limited health resources.” The principle they settle upon is utilitarian. “Informed by the principle of maximizing benefits for the largest number,” they suggest that “the allocation criteria need to guarantee that those patients with the highest chance of therapeutic success will retain access to intensive care.”

* * * ⁵⁸

The resulting hierarchy of care is not surprising. “L’età deve essere considerata nel contesto della valutazione globale della persona malata e non sulla base di cut-off predefiniti.”⁵⁹ Based

that exercise, also expresses the morality of aging and societal responsibilities toward those deemed to fall within that category. See, e.g., Thomas J. Kniesner, W. Kip Viscusi, and James P. Ziliak, “Life-Cycle Consumption and the Age-Adjusted Value of Life,” *The BE Journal of Economic Analysis & Policy* 5(1): (2006).

⁵⁷ “Decisioni per le cure intensive in caso di sproporzione tra necessità assistenziali e risorse disponibili in corso di pandemia di COVID-19,” SIAARTI (rev. 24 Nov. 2020); available [https://www.siaarti.it/news/353790].

⁵⁸ Yascha Mounck, “The Extraordinary Decisions Facing Italian Doctors,” *The Atlantic* (11 March 2020); available [https://www.theatlantic.com/ideas/archive/2020/03/who-gets-hospital-bed/607807/].

⁵⁹ “Decisioni per le cure intensive in caso di sproporzione tra necessità assistenziali e risorse disponibili in corso di pandemia di COVID-19,” SIAARTI (rev. 24 Nov. 2020); available [https://www.siaarti.it/news/353790], ¶4.2 il triage, p. 10. But note: “L’età non è di per sé un criterio sufficiente per stabilire quali pazienti possono maggiormente beneficiare delle cure intensive e pertanto non è possibile farvi ricorso in fase di triage stabilendo dei cut-off (soglie di età).” [Age is not in itself a sufficient criterion to establish which patients can benefit most from intensive care and therefore it is not possible to

on the idea that the more years one has the more valuable the life, treatment is based not on the possibility of recovery but on the value of life years.⁶⁰ Overall health is also to be taken into account. Yet for the elderly, that is also a proxy for the value diminishing characteristics of age.⁶¹

This is in part because early studies of the virus seem to suggest that patients with serious preexisting health conditions are significantly more likely to die. But it is also because patients in a worse state of overall health could require a greater share of scarce resources to survive: "What might be a relatively short treatment course in healthier people could be longer and more resource-consuming in the case of older or more fragile patients."⁶²

Yet it is one thing to rank the elderly down a hierarchy of treatment in the face of scarce resources. It is quite another to act on that impulse in determining whether such decisions will be implemented in a humane manner. Reports from Europe indicate that this is not always the case, especially in the face of popular hysteria that tends to attend pandemic and its fear,

use it in the triage phase by establishing cut-offs (age thresholds).] *ibid.*, p. 11.

⁶⁰ Yascha Mounck, "The Extraordinary Decisions Facing Italian Doctors," *The Atlantic* (11 March 2020); available [https://www.theatlantic.com/ideas/archive/2020/03/who-gets-hospital-bed/607807/].

⁶¹ "Nel caso delle cure intensive, si tratta di effettuare un'avalutazione comparativa delle condizioni globali dei pazienti non al fine di stabilire chi è più grave o ha maggiori necessità di cure, ma chi potrà con più probabilità (o con meno probabilità) superare l'attuale condizione critica con il supporto delle cure intensivestesse (sopravvivenza in terapia intensiva, con una ragionevole aspettativa di vita al di fuori di essa)." [In the case of intensive care, it is a question of making a comparative assessment of the overall conditions of patients not in order to establish who is more serious or greater need for care, but who is most likely (or least likely) to overcome the current critical condition with the support of intensive care themselves (ICU survival, with a reasonable life expectancy outside of it).] Decisioni per le cure intensive in caso di sproporzione tra necessità assistenziali e risorse disponibili in corso di pandemia di COVID-19," SIAARTI (rev. 24 Nov. 2020); available [https://www.siaarti.it/news/353790], ¶4.2 il triage, p. 11 (commentary).

⁶² Yascha Mounck, "The Extraordinary Decisions Facing Italian Doctors," *The Atlantic* (11 March 2020); available [https://www.theatlantic.com/ideas/archive/2020/03/who-gets-hospital-bed/607807/].

generally, of infection and either agony or death. In Spain, elder care facilities were abandoned, and those left behind were abandoned to their fate.⁶³ “Over 18,562 residents of care homes in England died with COVID-19 in a little more than three months and many of these deaths could be due to the U.K. government’s pandemic policies, which violated the human rights of vulnerable older people, says a report by Amnesty International.”⁶⁴ Though the Amnesty Report was clothed in the language of human rights, its moral element was plainly visible:

The UK government was clearly aware that the 400,000 residents of care homes in the UK, many of whom live with multiple health conditions, physical dependency, dementia and frailty, were at exceptional risk to coronavirus.⁹ Yet at the height of the pandemic, despite this knowledge, it failed to take measures to promptly and adequately protect care homes. Contrary to the claim by the secretary of state for Health and Social Care that a “protective ring” was put around care homes “right from the start,” a number of decisions and policies adopted by authorities at the national and local level in England increased care home residents’ risk of exposure to the virus—violating their rights to life, to health, and to non-discrimination.⁶⁵

In Italy and France those stricken in nursing homes may neither be tested nor identified, in part to reduce the official tally of the dead and the infected.⁶⁶ In many places nursing

⁶³ Lucía Benavides, “Spanish Military Finds Dead Bodies And Seniors ‘Completely Abandoned’ In Care Homes,” NR (24 March 2020); available [https://www.npr.org/sections/coronavirus-live-updates/2020/03/24/820711855/spanish-military-finds-dead-bodies-and-seniors-completely-abandoned-in-care-home].

⁶⁴ Anugrah Kumar, “Amnesty: UK gov’t violated human rights of care home residents during COVID-19,” The Christian Post; available [https://www.christianpost.com/news/amnesty-uk-govt-violated-human-rights-care-home-covid-19.html].

⁶⁵ *As If Expendable the UK Government’s Failure To Protect Older People in Care Homes During the Covid-19 Pandemic*, Amnesty International EUR 45/3152/2020; available [https://www.amnesty.org.uk/files/2020-10/Care%20Homes%20Report.pdf], P. 6.

⁶⁶ “570 people have died in nursing homes in France’s eastern region since the coronavirus outbreak,” *Daily Mail* (2 April 2020); available [https://www.dailymail.co.uk/news/article-8180169/570-people-died-nursing-homes-Frances-eastern-region-coronavirus-outbreak.html].

homes are strictly quarantined, making visits of (and oversight by) relatives nearly impossible.⁶⁷

But more importantly, what is emerging is a clear propensity for cruelty in the shadow of pandemic--but a cruelty made meaner by its veiling in the cold and utilitarian language of the administrator, of process, and of the *reductionism* at the heart of the turn toward the dehumanization of the elderly by reducing them to little more than an aggregate of measures against which their value to society is assessed. What had become a "natural" tendency of societies obsessed with the measurable in times of plenty is now exposed for its darker consequences in times of crisis.

That it is facilitated through the legitimating structures of law, of administrative regulation, and of a soulless utilitarianism the core premises of which (and the means by which it derives its measures) has never really be an object of societal, political or economic discussion, adds the most distressing level of cruelty to the entire enterprise. It may well be that a society must jettison its elderly in situations of stress. But to keep that principle hidden until it is time for some to take it on themselves to trigger that choice (and who chose them to make that decision under what circumstances?) appears to undermine the very fundamental character of the political-economic model in defense of which those same elderly gave much of their lives to sustain. Here, again, one encounters another set of fundamental issues exposed by COVID-19, whose resolution will await calmer time, but whose resolution is nonetheless necessary to protect the integrity of the political-economic model.

There is a small step from alleviation of pain to euthanasia. And euthanasia is as well based on a valuation of life, in part based on the years of "useful life" left in the patient. This reductionist valuation is so common as to be

⁶⁷ Emilio Parodi, "Uncounted among coronavirus victims, deaths sweep through Italy's nursing homes," Reuters (18 March 2020); available [<https://www.reuters.com/article/us-health-coronavirus-italy-homes-insigh/uncounted-among-coronavirus-victims-deaths-sweep-through-italys-nursing-homes-idUSKBN2152V0>] ["Immediately after the virus emerged in northern Italy on Feb. 21, care homes cut off access to visitors to limit the contagion risk to elderly patients most vulnerable to the disease"..]

unremarkable, but it represents an important societal consensus on the way in which life is valued.

In Spain, a former member of Catalonia's parliament claimed some elderly patients and those with pre-existing conditions are being given morphine to avoid the 'futility of health care'. Alfonzo Lopez Tena wrote in a tweet: 'Catalonia's govt decides to let die coronavirus patients who have "less years to live", [and recommends] no "admissions in hospital of patients with little benefit". * * * Yahoo news reported that according to regional newspaper LaVanguardia, the document cited by Mr Tena also recommends that medics do not use ventilators for patients older than 80."⁶⁸

At its limits, the cumulative effects do not merely illustrate the application of cultural presumptions in the ordering of society, and its harsher expressions when societies are in crisis. They might well point to a contradiction between the practice of these cultural presumptions about the alignment of age and death, with the fundamental concepts of human dignity and the value of life irrespective of life's inevitable march toward death (a march usually marked by age). And that brings one back to the Statement of the Independent Expert on the enjoyment of all human rights by older persons sought to bring a human rights perspective to these issues. That statement was then amplified by one distributed 1 October 2020.⁶⁹

Tragically, the COVID-19 pandemic is shining a spotlight on older persons. It has a disproportionate impact on older persons and has magnified existing violations of their rights. Existing inequalities that older persons face in terms of access to health, employment and livelihood are exacerbated. This involuntary focus

⁶⁸ Harry Howard, "Doctors facing 'temptation of euthanasia': French medic warns of terrible decision facing staff in coronavirus hit care homes while Spanish doctors are 'ordered to stop using ventilators for patients older than 80,'" *Daily Mail* (5 April 2020); available [<https://www.dailymail.co.uk/news/article-8189385/Doctors-France-treating-coronavirus-patients-faced-temptation-euthanasia.html>].

⁶⁹ The Independent Expert on the enjoyment of all human rights by older persons, "Older persons remain chronically invisible despite pandemic spotlight, says UN expert," UN Human Rights Mandate, available [<https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=26319&LangID=E>].

on older persons should not conceal the fact that they are chronically invisible. In most countries, information about the lived realities of older persons is at best fragmented, at worst, non-existent, and many countries lack adequate legislation at the national level to protect the rights of the older persons and to prevent ageism, discrimination, exclusion, marginalization, violence and abuse.⁷⁰

Both the Independent Expert and Amnesty has sought to frame the issue of the elderly in the common language of human rights. Yet at its core it remains a moral issue. COVID-19 suggests not just the morality gap in medicine, but also the connection between the governance framework of human rights and core moral norms—no transformed to suit the times.

B. Women's Autonomy

The issue of morality in the shadow of COVID-19 has not been confined to that of the elderly and the morality of resource allocation. This even as people necessarily focus on the urgent issues of preventing infection, treating the sick, and finding a cure, while protecting the social order and economic well-being of society. And yet it would be a mistake to detach issues of morality from the way that society confronts the challenge of COVID-19. More importantly, there is a necessary moral element when, in the shadow of the COVID-19, political and other actors seek to advance objectives that are not directly related to the fight against COVID-19.

But the issue of COVID-19 morality also shows a more cynical side. This cynical turn focuses on the way that morality, and moral thinking, becomes a key element of the accountability of our institutional and political leaders. The illustrative case centers on abortion regulation in the shadow of COVID-19.

Politics consumes morality like any other factor in the production of power. Once consumed, what started out as an autonomous morality, expressed as its great principles for the guidance of a consenting community, is excreted by the body politic as a means to an ends, one achieved through the manipulation of the structures of power ostensibly designed to

⁷⁰ Ibid.

constrain the amoral exercise of politics, but that, in some cases serves as its catalyst. Political actors are not moral actors as political actors, though they may believe themselves moral actors within their moral communities.

Political actors are better understood as prisoners of the logic of the institutions into which they have (freely) inserted themselves. Those institutions have no morals. And whatever morals are supposedly embedded therein are turned to the service of the institution. It is in that engagement that such morality loses its character as morality and instead becomes an instrument for the cultivation of the power of the institution, and its reflection in the power of those political actors who can manage (and appear to control) the institutional *Weltanschauung*. That is, once consumed within political institution, morality loses its force as morality and becomes instead merely a specific expression of political power which can then be projected outward onto those who must be bound by its expression.

These were the thoughts that might intrude as one reads reports of the way that "Gov Greg Abbott has announced a move to ban most abortions in the state during the [coronavirus](#) outbreak, declaring they don't qualify as essential surgeries."⁷¹ The reporting explained:

Attorney General Ken Paxton said Monday that the order issued over the weekend by Abbott barred 'any type of abortion that is not medically necessary to preserve the life or health of the mother.' Failure to comply with the order can result in penalties of up to \$1,000 or 180 days of jail time, Paxton said. 'No one is exempt from the governor's executive order on medically unnecessary surgeries and procedures, including abortion providers,' Paxton said. 'Those who violate the governor's order will be met with the full force of the law.'

The issue also has also flared in Ohio, where abortion clinics received letters Friday from Republican

⁷¹ Valerie Edwards, "Texas governor bans most abortions during coronavirus outbreak because they 'don't qualify as essential surgeries' - as Ohio considers following suit," *Daily Mail* 24 March 2020. Available [<https://www.dailymail.co.uk/news/article-8147325/Texas-moves-ban-abortion-coronavirus-outbreak.html>].

Attorney General Dave Yost ordering them to cease all 'non-essential' surgical abortions. Yost wrote that the procedures violate a March 17 order issued by the state health director. However, representatives of Ohio clinics said that they were in compliance with the health director's order and planned to continue providing abortions.⁷²

The weaponization of COVID-19 can also advance pro-abortion agendas, especially through the use of conditionality in aid. Nigerian advocate and filmmaker, Obianuju Ekeocha., was quoted as charging that as "a result of the pandemic, "donor nations" from the West are tying COVID-19 relief packages to support for abortion and other kinds of sexual radicalism"⁷³ These actions should be troubling for moral actors whether one embraces the position that abortion is a moral wrong, or conversely embraces the position that centers itself on the dignity of women in her relationship to conception as a moral imperative.

None of this is remarkable as politics; but it is worth considering as morals, or more specifically as the expression of morals through moral acts. These moral acts might be assessed by a simple measures—the fidelity of action to norm. And it is in that colliculus that the actions of these officials, falls short. Indeed, the morality of a politics of COVID-19, aligned with a politics of abortion (whether or not grounded in moral positions) might, as in this case, expose the temptations of immorality in crisis. The actions of the administrative and political officials of Texas and Ohio exposes the way that the morality of COVID19 responses also serves as a temptation to immorality, where temptation is understood a religious (and especially Biblical) sense.

One need not speak here to the morality of abortion, or even to its politics. Instead, the actions of these officials speak

⁷² Ibid. See also Abigail Abrams, "Abortion Clinics Are Rapidly Closing. Many Won't Come Back," *Time* (2 December 2020); available [<https://time.com/5916746/abortion-clinics-covid-19/>].

⁷³ Brandon Showalter, "COVID-19 relief is being weaponized to push abortion in Africa, documentary film claims," *The Christian Post* (10 December 2020); available [<https://www.christianpost.com/news/covid-19-relief-is-being-weaponized-to-push-abortion-in-africa-film-claims.html>].

instead to the avoidance of both. If one can assume that the Governor's action is an immoral act to serve his version of a moral purpose, does that absolve the immorality of the path taken? One might think not. The act is immoral *as politics* if only because rejects fidelity to the core ideology of political action. It is an immoral *morality* because it compromises morality while appearing to advance it. A moralist cannot help but feel dirty (in the moral sense) in the face of this action—the act of turning a moral good toward an immoral tool to advance a (contested) moral purpose. The “feeling dirty” arises from the deception at the heart of the actions; and calls to mind the maxim of equity, that one who comes into equity must come with clean hands. The officials may praise themselves for their politics, yet that amounts to little more than a celebration of weakness, of the weakness that comes from succumbing to temptation—to the very rejection of the morals ostensibly advanced.⁷⁴

It is that dirtiness, indeed, that diminishes the moral objective for which it was used. A moral actor opposed to abortion would find little solace in an administrative measure that continued to preserve abortion in a number of cases which that moralist would consider immoral. At the same time a moral actor who understands a woman's relationship to her body and conception as the central moral issue would find even less solace in an act designed to attack or challenge that moral position, but only sideways through the attrition of technicalities. That is by an act that appears to advance the normative morality of those who hold life sacred on the basis of a premise that centers the health of the woman in its moral calculus. From both perspectives the consequential immorality of the political consumption of morality becomes clear. Its Satanic character (even understood as metaphor for a principle of inversion) becomes clearer as well—revealing in the political act the exercise of power without morals. What one has, in the end, is an expression of immorality expressed as the exercise of administrative discretion under cover of crisis. One ought to fear for their souls—even if the soul can be reduced to little more than the societally originating premise of fidelity to the organizational and moral norms of the community.

COVID-19, then, like Satan in the Book of Job, becomes the agency through which societal (and in this case political)

⁷⁴ Job 1:8-12 (KJV).

actors are tempted under circumstances of stress, to reject the moral order that supports their political authority. To so reject is to reduce morality to a consumable and to acknowledge the amorality of politics—reduced to a vessel filled without reference to a moral (or in secular terms, a coherent principled) order. One does not deal here though, with a binary—black and white, moral or immoral. Instead one deals with the interaction of morality and expediency (the immoral as the means that ought to taint even as it advances).

The cover of COVID-19 to advance a moral position on abortion is merely one of an almost endless variation of the same challenge that is posed for political actors across the full range of the moral basis for the organization and political society. Yet it is instructive because the moral issues are fairly clear. The immorality of COVID-19 politics becomes murkier when, in the face of the pandemic, political, religious, societal, and economic leaders (those who exercise political authority over these sectors of societal organization) begin to use the cover of COVID-19 to reshape the core premises around which society is organized. Though there is nothing immoral about such reshaping, it is the deception, the use of the cover of COVID-19 as a means of hiding what is being done, that gives the politics of COVID-19 its fundamentally immoral character.

5. COVID-19 and the Acceleration of Data Driven Governance.

It should come as no surprise that the COVID-19 pandemic would generate responses by states, entities and other actors with governance (and self-governance) authority. Such responses, in turn, provide a window about the state of the mechanics of governance among these communities. More specifically, it also provides a window on the evolving alignments between the command functions of law and the implementation functions of data driven governance.

COVID-19 has produced substantial challenges to states and other entities with responsibility for the well-being of people. Much of the news about the way that states and other entities have been undertaking that responsibility has focused on medical measures to detect, control and eventually cure or prevent the disease. But states and other entities have also devoted substantial attention to the economic, societal, political,

and cultural consequences of the disease. Especially difficult has been consideration of the measures that might be taken to meet the medical challenges posed by the disease without violating institutional or cultural taboos. Most of these measures revolve around the core strategy, implemented in infinite contextually specific variations--containment.

Containment, however, is a strategy that does not lend itself well to law. *Except for constructing and devolving powers to contain* (person, idea, speech, bodies, processes, and the like), *the space within which containment is to be situated* (self-containment at home, hospitals, cruise ships, jail, student dorms, or the like), *and the conditions under which the power to determine and enforcement containment within designated spaces* (or with respect to speech, suppressed) *may be exercised*, containment is by its nature an administrative act. But it is more than that, containment strategies, including, choices about the holding of mass attendance events (like factory work, classroom instruction, cultural or sports events) do not lend themselves to the sort of discretionary decision making that is the hallmark of administrative practice by individuals.

That insight suggests that a containment based approach to COVID-19 would have to be data driven to be successful. But more than that, it would have to be a data consumptive enterprise, the purpose of which would be to feed an analytics that would help development algorithms for judging (1) disease risks of individuals and (2) likely consequences of such individual ratings given a variety of contexts in which that would be discovered.

A recent study considered the data based comprehensive approach undertaken by authorities in Taiwan.⁷⁵ This point considers that research study in the context of data driven governance within a rule of law state.

The Wang-Ng-Brook study explained that Taiwan

⁷⁵ C. Jason Wang, MD, PhD; Chun Y. Ng, MBA, MPH; Robert H. Brook, "Response to COVID-19 in Taiwan: Big Data Analytics, New Technology, and Proactive Testing," *JAMA* (online March 3, 2020); available [https://jamanetwork.com/journals/jama/fullarticle/2762689?guestAccessKey=2a3c6994-9e10-4a0b-9f32-cc2fb55b61a5&utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_content=tf1&utm_term=030320].

quickly mobilized its government with the object of identification, containment and efficient resource allocation through centralized management.

Taiwan leveraged its national health insurance database and integrated it with its immigration and customs database to begin the creation of big data for analytics; it generated real-time alerts during a clinical visit based on travel history and clinical symptoms to aid case identification. It also used new technology, including QR code scanning and online reporting of travel history and health symptoms to classify travelers' infectious risks based on flight origin and travel history in the past 14 days. Persons with low risk (no travel to level 3 alert areas) were sent a health declaration border pass via SMS (short message service) messaging to their phones for faster immigration clearance; those with higher risk (recent travel to level 3 alert areas) were quarantined at home and tracked through their mobile phone to ensure that they remained at home during the incubation period.⁷⁶

Taiwan also instituted proactive measures, "seeking out patients with severe respiratory symptoms (based on information from the National Health Insurance [NHI] database) who had tested negative for influenza and retested them for COVID-19."⁷⁷ Citizen reporting hotlines were created and people were encouraged to serve as the eyes and ears of the health establishment. Lastly the state "addressed the issue of disease stigma and compassion for those affected by providing food, frequent health checks, and encouragement for those under quarantine."⁷⁸

Mainland Chinese efforts at data enhanced or driven COVID-19 containment measures were more closely tied to

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*

⁷⁸ *Ibid.*, This rapid response included hundreds of action items (eTable in the Supplement). Challenges were noted as well. First the decision to communicate mostly in Mandarin and sign language. Second, the focus on air travel left notable gaps, especially for example with docking cruise ships. There was concern as well about the stamina of these programs—that is the strength of will of the state (and public patience with these measures) through the end of what might be a long pandemic season. *Ibid.*

Mainland Social Credit practices.⁷⁹ Chinese authorities have been working to align their regulatory approaches to the management of responses to the pandemic with their social credit system. It was widely reported in Spring 2020⁸⁰ reported that the social credit system for individuals has been modified to include a "health color code" with the code tied to obligations to quarantine. A Yellow rating requires a seven day quarantine; a red contagion risk requires stronger measures. Both yellow and red contagion rankings also produce collateral consequences--restricted access to malls, public transport or restaurants (which may be completely restricted). In some cases yellow or red contagion ratings affect the right to return to work and in some cases to return to one's home. The system is an add on to the Alipay system tied to the Alibaba e-commerce site and widely used.⁸¹

In the form of the Alipay Health Code it effectively supplemented the current social scoring system with health data. It is also coordinated with WeChat and Alipay tracking of pharmacy purchases to track illness. "Ant and the Chinese government did not provide details on how the app works, though it reportedly also shares information tied to the health code and transactions with law enforcement,"⁸² Lastly the system was tied to voluntary and mandatory reporting; individuals were asked to self-report health or to report the health of others, companies were required to keep track of employee health. These were in many places merged into health code platforms which ultimately fed into the three color system.⁸³

⁷⁹ On Chinese social credit, see, e.g., Larry Catá Backer, "Next Generation Law: Data-Driven Governance and Accountability-Based Regulatory Systems in the West, and Social Credit Regimes in China," *Southern California Interdisciplinary Law Journal* 28:123-172 (2018).

⁸⁰ See, e.g., "China Adds COVID-19 Contagion Risk Ratings to Individual Profiles in National Surveillance System," *CPO Magazine*; available [<https://www.cpomagazine.com/data-privacy/china-adds-covid-19-contagion-risk-ratings-to-individual-profiles-in-national-surveillance-system/amp/>].

⁸¹ *Ibid.*

⁸² See, John Adams, "Morning Brief 3.4.20: Alipay's coronavirus 'health code' feeds payment data to police," *Payments Source* (4 March 2020); available [<https://www.paymentsource.com/news/alipays-coronavirus-health-code-feeds-payment-data-to-police>].

⁸³ Nicole Jao, "Alipay Developed China's National Health Code Rating System," *Technode* (17 Feb. 2020); available

The analytics of the system have not been entirely revealed but include weighted factors based on places visited and contact with people already known to be infected. Lack of transparency, of course, is one of the great issues of data driven governance in this, its formative stage. The addition to the social credit system also has been criticized on the usual grounds (not that these usual grounds are unimportant or worth ignoring; indeed, they go to the integrity of the system and thus cannot be ignored even within the ruling ideology of those crafting the system). These include the robustness (including accuracy) of data, the coherence of the analytics, and the actual usefulness of the algorithms (in its role of imposing rewards and punishments) in relation to state policy.

The contagion color coding system further cements the relationship between the private Alipay enterprise and the state. The Alipay Health Code program⁸⁴ is administered through Alipay, which effectively enrolls a substantial majority of the population which are almost universally used for economic transactions in China. The connection between the DAMO⁸⁵ in Hangzhou and high level elements of the CPC ought not to be ignored in this construction. As important, the refinement of data driven ratings for managing individual conformity to regulation will provide the platform through which it will be possible to expand the program to entities as well. For Westerners, the *New York Times*⁸⁶ provides the usual (and for that reason useful) analysis from the perspective of the influence driving cliques it represents ("But a New York Times analysis of the software's code found that the system does more than decide in real time whether someone poses a contagion

[<https://technode.com/2020/02/17/alipay-developed-chinas-national-health-code-rating-system/>].

⁸⁴ 支付宝健康码 7 天落地超 100 城 数字化防疫跑出“中国速度”2020-02-19 16:17:46 来源：新华网 available [http://www.xinhuanet.com/tech/2020-02/19/c_1125596647.htm].

⁸⁵ Alibaba DAMO Academy; About (March 220), available [<https://damo.alibaba.com/>].

⁸⁶ Paul Mozur, Raymond Zhong and Aaron Krolik, "In Coronavirus Fight, China Gives Citizens a Color Code, With Red Flags," *New York Times* (1 March 2020); available [<https://www.nytimes.com/2020/03/01/business/china-coronavirus-surveillance.html>].

risk. It also appears to share information with the police, setting a template for new forms of automated social control that could persist long after the epidemic subsides." Ibid., *passim* in this section from Ibid).

Israel provides a glimpse at approaches more aligned to the ideologies and methods of liberal democratic states. Israel passed legislation that opens the possibility of tracking people known to be infected with COVID-19.⁸⁷ In a statement posted to Facebook,⁸⁸ prime minister Benjamin Netanyahu wrote:

"We will dramatically increase the ability to locate and quarantine those who have been infected. Today, we started using digital technology to locate people who have been in contact with those stricken by the Corona. We will inform these people that they must go into quarantine for 14 days. These are expected to be large – even very large – numbers and we will announce this in the coming days. Going into quarantine will not be a recommendation but a requirement and we will enforce it without compromise. This is a critical step in slowing the spread of the epidemic."⁸⁹

The law is particularly interesting for the way that, like the measures in Taiwan, it aligns and makes coherent multiple measures for maximizing attainment of (measurable) goals. In this case the coordination is with COVID-19 testing.⁹⁰ The consequential coordination with surveillance manages population movements. More importantly, when expanded to cover surveillance of movements of the entire population it may provide basis for warning those not exposed to COVID-19 to the proximity of COVID-19 positive individuals. Thus, it was reported that:

⁸⁷ Natasha Lomas, "Israel passes emergency law to use mobile data for COVID-19 contact tracing," *Extra Crunch* (18 March 2020) available [<https://techcrunch.com/2020/03/18/israel-passes-emergency-law-to-use-mobile-data-for-covid-19-contact-tracing/>].

⁸⁸ The Prime Minister of Israel (17 March 2020); available [<https://www.facebook.com/IsraeliPM/posts/3345468375467884>].

⁸⁹ Ibid., see also Lomas, "Israel passes emergency law," *supra* note 6.

⁹⁰ Sam Dorman, "Israel's Netanyahu seeks 'mass blood tests' to weed out COVID-19, restart economy: report," Fox News (22 March 2020) available [<https://www.foxnews.com/world/israel-netanyahu-mass-blood-tests-coronavirus>].

“On orders of Prime Minister Benjamin Netanyahu, the Shin Bet domestic spy agency is running this new surveillance program tracking telephone data. When someone has tested positive for the coronavirus, the Israeli spy agency traces where that person's cellphone went over the past two weeks, the incubation period for COVID-19. And if your cellphone was nearby, you get a text message. Sharon Perri is a cellular tracing expert”.⁹¹

Of course, all of this will have significant potential application for all sorts of other uses--especially important in places like Israel.⁹² “The other state bodies don’t have the necessary technological means to aid this effort,” Argaman said in a statement. “I am well aware of the sensitivity of this matter and therefore have instructed that only a very limited number of agents will be handling this and the information will not be saved in the Shin Bet database.”).

The alignment of state security and health ministries, connected through technology and melded through the utility of coordinated data warehouses, presents both efficiencies in meeting short term objectives (mitigating adverse health effects of COVID-19) and challenges (managing the effects of this new regulatory tool in light of the foundational premises of political organization). But not just Israel. “Civil liberties campaigners have warned the move to monitor citizens’ movements sets a dangerous precedent.”⁹³ This is part of a larger conversation, and a larger critique, one that eventually will require resolution.⁹⁴ It is not clear in what direction, and with what consequences, that resolution will produce. At a minimum it is likely to challenge the core premises around the foundational

⁹¹ Daniel Estrin, “Israeli Government Criticized For How It Monitors COVID-19 Cases),” *NPR* (19 March 2020) available [https://www.npr.org/2020/03/19/818192570/israeli-government-criticized-for-how-it-monitors-covid-19-cases].

⁹² Aron Heller, “Spying on the virus: Israel secret service to track patients,” *Egypt Independent* (17 March 2020) available [https://egyptindependent.com/spying-on-the-virus-israel-secret-service-to-track-patients/].

⁹³ Lomas, “Israel passes emergency law,” *supra* note 6.

⁹⁴ Catalin Cimpanu, “US, Israel, South Korea, and China look at intrusive surveillance solutions for tracking COVID-19,” *ZDNet* (20 March 2020) available [https://www.zdnet.com/article/us-israel-south-korea-and-china-look-at-intrusive-surveillance-solutions-for-tracking-covid-19/].

principle of human dignity on which liberal democratic states are organized, at least since 1945.

South Korea also presents a response based on the aggregation of multiple projects of data harvesting when coordinated with consequence based directives. These are meant to produce synergies between data based governance and the super structure of administrative regulation and law. Data driven measures, then, are not just treated as an implementation technique but as the vehicle through which administrative-legal rules are actually operationalized and through that operationalization actually defined. The differences, however, between Korea and for example, Mainland China, may reflect those of the political economic model and the constraints of its rights based constitutional order.

In its initial stages, the Korean approach combined an aggressive testing program (critical data harvesting) with analytics based alignments with other national data bases. "If these patients can't be found, testing capacity doesn't mean much. This is where smart city infrastructure comes in. The aim is to work out where known patients have been and test anyone who might have come into contact with them."⁹⁵ Tracking was implemented in three ways. The first was through the use of debit and credit cards—producing both a map of movements and making possible the application of analytics to purchases. The second was through the use of mobile phones as tracking devices for movements which could be recorded, aggregated and then analyzed for aggregate trends even as it was possible to reach down to individual users when necessary. Third, the country's system of CCTV cameras could be used to track and to provide facial recognition capabilities.⁹⁶ South Korea added an element of transparency as well. "The result of the tracking is not only used by health authorities⁹⁷ but also made public via

⁹⁵ Jung Won Sonn , "Coronavirus: South Korea's success in controlling disease is due to its acceptance of surveillance," *The Conversation* (19 March 2020) available [<https://theconversation.com/coronavirus-south-koreas-success-in-controlling-disease-is-due-to-its-acceptance-of-surveillance-134068>].

⁹⁶ Jung Won Sonn , "Coronavirus: South Korea's success in controlling disease is due to its acceptance of surveillance," *The Conversation* (19 March 2020).

⁹⁷ "세계가 놀란 확진자 동선 추적 '통신과 금융 인프라' 덕분" Chosun Website; available [<http://it.chosun.com/m/svc/article.html?contid=2020031400735&ut>]

national and local government websites, free smartphone apps that show the locations of infections, and text message updates about new local cases. This help citizens avoid hotspots of infections."⁹⁸

China , Korea, and Israel are useful case studies, principally because they are quite proactive in moving development forward, but also because they are both emblematic of two quite distinct frameworks for organizing political society. They are also both influential--an influence that can actually be measured by the intensity of the criticism of their actions. Other states, however, have not been idle. In Spain, for example, the police have begun to use drones to enforce the stay at home rules. "The police in Madrid are now deploying their own spies in the skies, filming streets and parks, using its onboard speaker to order people home. "We will not hesitate to use all the means at our disposal to ensure your security and that of everyone," Madrid's Police Force explained on Twitter. "Although some still make it difficult for us."⁹⁹ Indeed, drones became an essential part of surveillance and policing efforts as states sought to better manage their populations to meet the challenges of pandemic. As one supplier of drones expressed the sentiment at the time: "Drone technology has emerged as a key tool to support those who operate at the frontlines as more and more Public Safety entities engage in finding out how it can aid in their missions."¹⁰⁰

Through early April 2020, they have been used mostly to augment the physical presence of police and to warn people away from discouraged activity. Neither the technology nor its use is new; but the exceptional circumstances have pushed the

m_source=undefined&utm_medium=unknown&utm_campaign=itchosun].

⁹⁸ Jung Won Sonn , "Coronavirus: South Korea's success in controlling disease is due to its acceptance of surveillance," *The Conversation* (19 March 2020).

⁹⁹ Zak Doffman, "Coronavirus Spy Drones Hit Europe: This Is How They're Now Used," *Forbes* (16 March 2020) available [<https://www.forbes.com/sites/zakdoffman/2020/03/16/coronavirus-spy-drones-hit-europe-police-surveillance-enforces-new-covid-19-lockdowns/#636086c87471>].

¹⁰⁰ Erick Razon, "Drones are an Essential Tool to Fight COVID-19 in Europe,: A Recap of Leading Use Cases and DJI Support Application Form" DJI Enterprise Blog (30 March 2020); available [<https://enterprise-insights.dji.com/blog/dji-drones-essential-tool-fight-covid19-europe-support-program>].

boundaries of the ubiquity of surveillance and of its use as an instrument of severe social control. It is undertaken for all the best reasons now. But a tool has neither morality nor ideological constraints. Thus, what is new is its deployment in this way in Europe, where sensitivities toward these sorts of activities may be much higher than elsewhere. The technology, of course, will become more potent when (and if) it is combined with national measures for aligning facial recognition to drone based data of activity that violates administrative rules about staying in place.

Implications. The use of data driven measures produces broader implications that are likely to be ignored in the heat of immediate response to the health crisis of the pandemic. Yet, the rush to deploy data driven tools, and to use it in a way that suggests the ease with which it is possible to control a population—to effectively quarantine it and to shut down large sectors of an economy, ought to give pause. Greater pause, perhaps, to the way that these measures had the effect of law but were effectively “law-less”—that is they operated as new forms of rulemaking sourced in the exercise of administrative discretion made “law-full” through open ended mandates approved by judiciaries as consistent with the political-legal order at least in the rush to save lives.¹⁰¹ Here is a metamorphosis in slow motion. And it is a transformation that reveals the inner core of a character of a system long buried under the comforting velvet of layers of principles.¹⁰² In this light,

¹⁰¹ See, e.g., Betsy Z. Russell, “Why stay-home orders during pandemics are legal, constitutional: “Time after time, courts have upheld a state’s authority to enact and enforce a quarantine law, and that dates back at least to 1902.”,” KTVB (27 April 2020); available [<https://www.ktvb.com/article/news/health/coronavirus/stay-home-order-legal-constitutional/277-5e963fd3-35a1-4cd4-a923-1b782406a7c0>], Samuel Dodge, “Michigan’s public health orders are legal under state code, but there will be constitutional challenges,” MLive (19 Nov. 2020); available [<https://www.mlive.com/public-interest/2020/11/michigans-public-health-orders-are-legal-under-state-code-but-there-will-be-constitutional-challenges.html>].

¹⁰² This metamorphosis is well exposed by the odd marginal judicial opinion that goes against the grain: see Matt Petrillo, “Federal Judge Rules Pennsylvania Gov. Tom Wolf’s COVID-19 Shutdown Orders Unconstitutional,” CBS Philly (15 September 2020); available [<https://philadelphia.cbslocal.com/2020/09/15/federal-judge-rules-pennsylvania-gov-tom-wolfs-covid-19-shutdown-order-unconstitutional/>] (“In a 60-plus page opinion, the judge wrote: “There

a set of initial implications of these transformations begins to emerge:

First, it suggests that in the context of the places considered, it is possible to implement a data driven system for the coherent and comprehensive approach by public authorities to meet the threat of disease. Yet that possibility can only be realized where there is a tight discipline on governmental and critical private actors—something that has been lacking in the U.S., for example.¹⁰³

Second, at the same time it is clear that a government's success was due in large part that the system was already in an advanced stage of creation (to fight SARS for example or to control terrorism) at the time COVID-9 exploded on the scene. Moreover the effectiveness of the system will be enhanced by substantial normative coherence, something that was lacking in the United States,¹⁰⁴ and controversies around which shaped the Israeli government's response as well.¹⁰⁵

Third, the response required a substantial effort not just to the conceptualization and construction of data harvesting systems, ad a relevant data set, but also of an analytics from data capable of providing useful conclusion and suggestions. That ca

is no question that this country has faced, and will face, emergencies of every sort. But the solution to a national crisis can never be permitted to supersede the commitment to individual liberty that stands as the foundation of the American experiment.”); “Churches Win Federal Court Decision Against Two Of State’s COVID-19 Mandates,” CBS Denver (21 Oct. 2020); available [https://www.msn.com/en-us/news/crime/churches-win-federal-court-decision-against-two-of-states-covid-19-mandates/ar-BB1aepGw].

¹⁰³ See, e.g., Rich Calder, “New York City Police, Sheriff Won’t Enforce Thanksgiving Covid-19 Limits: Cuomo held holiday gatherings to 10 people, but law-enforcement agencies don’t plan to check compliance,” *The Wall Street Journal* (24 Nov. 2020); available [https://www.wsj.com/articles/new-york-city-police-sheriff-wont-enforce-thanksgiving-covid-limits-11606231659].

¹⁰⁴ See, e.g., Joe Kelly, “Wisconsin Justices Clash Over Legality of Lockdown Order,” Courthouse News Service (5 May 2020); available [https://www.courthousenews.com/wisconsin-justices-clash-over-legality-of-lockdown-order/].

¹⁰⁵ See, e.g., Aeyal Gross, “Rights Restrictions and Securitization of Health in Israel During COVID-19,” Bill of Health (Harvard Law School Blog)(29 May 2020); available [https://blog.petrieflom.law.harvard.edu/2020/05/29/israel-global-responses-covid19/].

be undertaken by states, though sometimes it is possible, like in the U.S. and China, to use private data harvesting networks and systems.¹⁰⁶ In both cases, the metamorphic character of the effort emerges at times: “COVID-19 has accelerated this trend as companies have had to adapt and fast-track digital transformations of their operations to meet the increasing demands of data-driven services and products.”¹⁰⁷

Fourth, these analytics had to provide a basis for developing quick judgment of consequences--especially with respect to identification of individuals, and with respect to their containment. But that speed and efficiency was perhaps purchased at some cost to the developing principles of privacy and individual rights. Here a balancing and re-calibration might be necessary--but that re-calibration (as evidenced by the operation of the system) did not appear to have been undertaken with much engagement by the people or relevant political actors.

Fifth, the issue of calibration becomes more acute in the context of information control. Here it takes two forms. First is the fight against fake news and rumor mongering. As was clear in the situation in Wuhan in December, it is sometimes difficult for officials to discern the difference between courageous acts of individual patriotism and anti-social rumor mongering. The results of mistakes can be disastrous. Yet there appears to be little attention paid to those issues. The second involves the management of official information. Here public transparency and accountability requires a more open textured

¹⁰⁶ See, e.g., Zak Doffman, “Yes, Apple/Google COVID-19 Tracking Is Now On Your Phone—Here’s The Problem,” *Forbes* (29 June 2020); available [https://www.forbes.com/sites/zakdoffman/2020/06/29/serious-new-blow-for-apple-and-google-as-covid-19-phone-tracking-is-rejected/?sh=48e038b667cc]; Kif Leswing, “States are finally starting to use the COVID-tracking tech Apple and Google built — here’s why,” *CNBC* (3 Oct. 2020); available [https://www.cnn.com/2020/10/03/covid-app-exposure-notification-apple-google.html].

¹⁰⁷ Andrew Gordon, “The EY Global Integrity Report 2020 highlights that despite companies having more data, they face significant gaps in effectively protecting it,” *EY* (25 June 2020); available [https://www.ey.com/en_us/forensic-integrity-services/how-to-safeguard-data-while-ethically-leveraging-its-value]. See generally, *Is this the moment of truth for corporate integrity? Global Integrity Report 2020*, Forensic & Integrity Servicesey.com/integrityreport (June 2020); available [https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/assurance/assurance-pdfs/ey-is-this-the-moment-of-truth-for-corporate-integrity.pdf].

engagement. Yet most states, the United States included, tend to view its duty to severely manage its public communication in ways that are sometimes possible appear more valuable to the administrative officials than to the public.¹⁰⁸ That is especially important in the context of accountability.

Sixth, there appears to be little effort either to protect data integrity, or to manage systems for removing erroneous data and correcting consequential errors that are produced by bad data.¹⁰⁹ And yet, protecting the integrity of the system of data driven management of disease based crisis at the cost of damaging individuals who suffer the consequences of erroneous application due to bad data, may create contradictions between the principle of systemic efficiency and the organizing principles of states founded on the notion of individual human dignity.¹¹⁰ Additionally, criminal activity remains an issue: "Ransomware attacks on hospitals and health systems have continued during the pandemic, raising key cybersecurity considerations about infrastructure disruptions and COVID-19 test data integrity."¹¹¹

Seventh, the issue of public data base integration will prove the most challenging even as it holds the most transformative potential.¹¹² What the researchers noted, for

¹⁰⁸ For the U.S., see, e.g., Michael D. Shear and Maggie Haberman, "Pence Will Control All Coronavirus Messaging From Health Officials: The White House's attempt to impose a more disciplined approach to communications about the virus was undermined by President Trump, who complained the news media was overstating the threat," *The New York Times* (27 February 2020); available [<https://www.nytimes.com/2020/02/27/us/politics/us-coronavirus-pence.html>].

¹⁰⁹ Discussed in Larry Catá Backer "Automated Law: The Problem of Data Integrity Moves (if only for a Moment) to Center Stage," *Law at the End of the Day* (11 Feb. 2020); available [<https://lbackerblog.blogspot.com/2020/02/automated-law-problem-of-data-integrity.html>].

¹¹⁰ See, "Assessing Data Integrity in Times of COVID," Rutgers Cancer Institute (4 June 2020); available [<https://cinj.org/assessing-data-integrity-times-covid>].

¹¹¹ Jackie Drees, " COVID-19 cyber threats: Why data integrity is crucial & how to protect it," *Becker's Health IT* (6 May 2020); available [<https://www.beckershospitalreview.com/cybersecurity/covid-19-cyber-threats-why-data-integrity-is-crucial-how-to-protect-it.html>].

¹¹² Susan Teran, "A Key Building Block for any COVID-19 Response: Data Integration," *Allscripts blog* (28 May 2020); available

example, was that Taiwan integrated its national health insurance database with its immigration and customs database. Both are public sector data bases tied to large public sector operations. It was put forward for the proposition that data base integration was useful for developing specific focus analytics--in this case targeting the management of strategies of containment against the spread of a contagious disease. Yet that also suggests issues for the future. The first is the utility of data harvesting fragmentation by public bodies. In the context of data driven governance, it remains unclear why a taxonomy of data "ownership" among government agencies dictated by a jurisdictional taxonomy with origins in a prior century ought to extend its dead hand to manage the fundamental building block of control in this century. The issue becomes more complex when data is owned, generated or controlled by private sector enterprises. That, of course, ought to raise the question of political and normative premises built around these emerging systems of control. Instead, the discourse of law, in the face of this emerging data governance modernity, appears increasingly Luddite in form and character.

Eighth, almost entirely ignored are the issues of private data governance of the type utilized by state authorities. The transformative character of COVID-19 on administrative practice and the regulatory toolkits have already started to be examined.¹¹³ In most markets driven political structures, an enormous amount of regulatory authority over the daily lives of people are now delegated to the discretionary authority of

[<https://www.allscripts.com/2020/05/a-key-building-block-for-any-covid-19-response-data-integration/>].

¹¹³ "Regulatory quality and COVID-19: The use of regulatory management tools in a time of crisis," OECD Brief (30 Sept. 2020); available [<http://www.oecd.org/coronavirus/policy-responses/regulatory-quality-and-covid-19-the-use-of-regulatory-management-tools-in-a-time-of-crisis-b876d5dc/>]. ("One of the most salient concerns facing regulatory management tools in the future is the ability to develop new, timely responses to fast changing economic, technological and public health environments; and the need to ensure the resilience of the regulatory system to future systemic threats." Ibid.); William D. Eggers, Shruthi Krishnamoorthy, Pankaj Krishnani, "Transforming government post-COVID-19 How flipping orthodoxies can reinvent government operating models Deloitte Insights (15 June 2020); available [<https://www2.deloitte.com/us/en/insights/economy/covid-19/transforming-government-post-covid-19.html>].

private actors.¹¹⁴ Though sometimes these delegations are more or less closely aligned to public objectives, for the most part the range of discretionary authority is broad. Those enterprises are also increasingly driven by analytics derived from fractured data bases that they manage (and sell). To manage these managers appears to be an important element for comprehensive strategies, especially in the face of epidemics. Here one encounters the challenges of rethinking conceptual walls between public and private data, data integrity, and the transparency of the analytics and judgments derived from the employment of these emerging regulatory actions.

5. Disjunctions Between those who Manage and those who Bear the Costs of Meeting the COVID-19 Challenge.

A. Data Driven Pandemic and the Ascendancy of Simulated Reality as the New Political Space: The Administration of Disease and the Disease of Administration in the Light of COVID-19.

In *The Measure of Reality: Quantification and Western Society 1250-1600*,¹¹⁵ Alfred W. Crosby summarized the arc of 350 years of development beginning around the turn of the 14th century this way:

Western Europeans evolved a new way, more purely visual and quantitative than the old, of perceiving time, space and material environment. * * * In practical terms, the new approach was simply this: reduce what you are trying to think about to the minimum required by its definition; visualize it on paper, or at least in your mind, be it the fluctuation of wool prices at the Champagne fairs or the course of Mars through the heavens, and divide it, either in fact or in imagination, into equal quanta. Then you can measure it. * * * Then you possess a quantitative representation of your subject that is,

¹¹⁴ On the dangers of public private tech driven regulatory alignments, see Julie E. Cohen, Woodrow Hartzog, and Laura Moy, "The Dangers of Tech-Driven Solutions to COVID-19," Tech Stream, Brookings (17 June 2020); available [https://www.brookings.edu/techstream/the-dangers-of-tech-driven-solutions-to-covid-19/].

¹¹⁵ Alfred W. Crosby, *The Measure of Reality: Quantification and Western Society 1250-1600* (Cambridge University Press, 1997).

however simplified, even in its errors and omissions, precise. You can think about it rigorously. You can manipulate it and experiment with it, as we do today with computer models. (Ibid., 227, 228-229)

The trajectories of what Alfred Crosby called "The New Model" of perceiving the "mysteries of reality" and thus perceived, of rationalizing these mysteries within them,¹¹⁶ has continued in fits and starts through to the current age. It has marked the entirety of the organization of human institutions as much as it has shaped the current forms of its perceptions of itself especially the art of modelling--of rendering reality in abstract space drawn from data.¹¹⁷ In the process it has transformed time, space, and the way we mark them, and with that the world around us.

The trajectories, however, have changed. What through the seventeenth century had been a means for rationalizing the world around us, by the 20th century had now inverted the relationship between reality and perception. When what is perceived becomes real, reality is relevant only as a means of accountability, as a check on the viability of perception itself. That, of course, has produced a powerful philosophical reaction in the 20th century from an engagement with the nature of phenomena¹¹⁸ and later to its political manifestation.¹¹⁹

COVID-19 has now exposed the extent to which those inversions have come fully to government at last. The pandemic has now exposed also the way in the perception of politics and human organization, its reality is shaped, understood, and controlled through *quantitative representation*. COVID-19 has now also exposed the extent to which, whatever the lingering elements of the post 1945 era *ancien regime* intelligentsia suggest otherwise, the reality of politics is being manifested as

¹¹⁶ Ibid., p. 239.

¹¹⁷ See "Building Better Models: Why Macroeconomics Needs to Enter," *The Economist* (3 August 2020); available [https://www.economist.com/free-exchange/2010/08/03/building-better-models].

¹¹⁸ Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology* (David Carr (trans) Northwestern University Press, 1970 (1938)) (esp. §9 Galileo's Mathematization of Nature)

¹¹⁹ Jürgen Habermas, *The Theory of Communicative Action Vol. 2 Lifeworld and System: A Critique of Functional Reason* (Thomas McCarthy (trans) Boston: Beacon Press, 1987)

the product of a perception of data that produces a managed simulation of the world in which it seeks to control. Modelling is the way we create these simulacra and through that creation creates for itself a more prominent role in the political management of human affairs. The character of that role is not as a tool of politics but as politics itself. This was made clear, for example, by the Council of Europe, as it sought to accommodate reality but embedded in core European principles.¹²⁰ That, in *essence* (and we deal almost entirely now in a world that operates by reducing objects to its essence and then layering those reduced essences into models of reality), is what COVID-19 has revealed in 2020.

The implications are important, especially as revealed by an ascendancy of data driven Pandemic; likely the most important legacy of COVID-19. Its effects have touched virtually every aspect of collective life. One of the most interesting aspect of the COVID-19 pandemic has been the way in which it is exposing growing disjunctions--growing gaps--between the principles, customs and traditions on which a political order is organized and the way it has been operated after January 2020. Those who have made it a point of protecting the conceptual basis of the old order have been especially sensitive to this disjunction and have, even early in the emerging era of pandemic, sought to alert and correct (or better put, fill) the gaps that have existed for a while but which are now inescapably apparent. These efforts are particularly notable in the context of the developing conceptual regimes of human rights.¹²¹ The Report noted:

The major social, political and legal challenge facing our member states will be their ability to respond to this crisis effectively, whilst ensuring that the measures they take do not undermine our genuine long-term interest in safeguarding Europe's founding values of

¹²⁰ Council of Europe, Respecting democracy, rule of law and human rights in the framework of the COVID-19 sanitary crisis: A toolkit for member states, Council of Europe Information Document SG/Inf(2020)11 (7 April 2020); available [https://rm.coe.int/sg-inf-2020-11-respecting-democracy-rule-of-law-and-human-rights-in-th/16809e1f40].

¹²¹ Amnesty International: *Europe at a Crossroads: Dos and Don'ts for Authorities When Responding to the COVID-19 Pandemic* (London: Amnesty International, 2020); available [https://www.amnesty.org/download/Documents/EUR0120792020ENGLISH.PDF].

democracy, rule of law and human rights. It is precisely here that the Council of Europe must carry out its core mandate by providing, through its statutory organs and all its competent bodies and mechanisms, the forum for collectively ensuring that these measures remain proportional to the threat posed by the spread of the virus and be limited in time. The virus is destroying many lives and much else of what is very dear to us. We should not let it destroy our core values and free societies.¹²²

Most spectacularly, of course, has been the way in which states and other institutions were able to mobilize the masses in ways that substantially altered their lives, their freedoms of action and movement, and their access to collective activities (economic, religious, social, and political).¹²³ This ought not to be taken lightly. Without much of a block, even the "freest" society deployed the language of war and of national emergency to loosen the usual restraints on the exercise of power (for limits, e.g., [here](#)). As notable has been the way in which traditional principles of macro-economic policy has been sidelined as the usual gatekeepers and regulators abandoned restraint in efforts to preserve at least short term stability.¹²⁴

¹²² Ibid.

¹²³ See, Jiachuan Wu, Savannah Smith, Mansee Khurana, Corky Siemaszko and Brianna DeJesus-Banos, "Stay-at-home orders across the country: What each state is doing — or not doing — amid widespread coronavirus lockdowns," NBC News (25 March 2020; updated 29 April 2020); available [<https://www.nbcnews.com/health/health-news/here-are-stay-home-orders-across-country-n1168736>]; Raymond Zhong and Vivian Wang, "China Ends Wuhan Lockdown, but Normal Life Is a Distant Dream," *The New York Times* (17 April 2020); available [<https://www.nytimes.com/2020/04/07/world/asia/wuhan-coronavirus.html>]; "Coronavirus: What are the lockdown measures across Europe?," DW (14 April 2020); available [<https://www.dw.com/en/coronavirus-what-are-the-lockdown-measures-across-europe/a-52905137>]; Michael Cohen and Amogelang Mbatha, "South Africa Orders Three-Week Lockdown to Curb Virus Spread," Bloomberg (23 March 2020); available [<https://www.bloomberg.com/news/articles/2020-03-23/south-africa-orders-three-week-lockdown-to-curb-virus-spread>]; Manveena Suri, Swati Gupta and Ivana Kottasová, "India, population 1.3 billion, orders 'complete' coronavirus lockdown," CNN (24 March 2020); available [<https://www.cnn.com/2020/03/24/asia/india-lockdown-coronavirus-intl/index.html>].

¹²⁴ See, Daniel Villareal, "Here's How U.S. Coronavirus Stimulus Package Compares to Other Countries Around the World," Newsweek (10 April

The magnitude of these disjunctions has acquired a somewhat different character in the context of pandemic. COVID-19 responses has centered the use of metrics and data-based analytics in managing responses to infection in a more comprehensive way. These metrics take two forms. The first is data based surveillance. The second and more indicative of the future, is modelling.

The first of these, monitoring, surveillance, reporting and data harvesting is well worn territory--at least as measured by the span of a human life.¹²⁵ These are meant to serve both as tools and as the substance of regulation. As tools, these are the means by which accountability can be quantified and reduced to a value against which other values can be compared (or compared against triggers). They also serve (as a sort of performance of accountability) of the proof of the value or "correctness" of political and policy choices made. At the same time they also substitute for the regulations they are meant to make visible where the construction of the systems or premises of data gathering, surveillance, and the like, are left to those constructing or implementing them, and where their choices effectively have normative effect.

2020); available [<https://www.newsweek.com/heres-how-us-coronavirus-stimulus-package-compares-other-countries-around-world-1497360>]; Chad Stone, "Fiscal Stimulus Needed to Fight Recessions: Lessons From the Great Recession," Center on Budget and Policy Priorities (16 April 2020); available [<https://www.cbpp.org/research/economy/fiscal-stimulus-needed-to-fight-recessions>]; European Council, Council of the European Union, "Report on the Comprehensive Economic Policy Response to the COVID-19 Pandemic," Press Release (9 April 2020); available [<https://www.consilium.europa.eu/en/press/press-releases/2020/04/09/report-on-the-comprehensive-economic-policy-response-to-the-covid-19-pandemic/>]; Alexander Chipman Koty, "Why China's COVID-19 Stimulus Will Look Different than in the Past," China Briefing (6 April 2020); available [<https://www.china-briefing.com/news/chinas-stimulus-measures-after-covid-19-different-from-2008-financial-crisis/>]; "Policy Responses to COVID-19: Policy Tracker," International Monetary Fund (last updated 4 Dec. 2020); available [<https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>].

¹²⁵ See, Urs Gasser, Marcello Ienca, James Scheibner, Joanna Sleight, Effy Vayena, "Digital tools against COVID-19: Framing the ethical challenges and how to address them," arXivLabs (21 April 2020); available [<https://arxiv.org/ftp/arxiv/papers/2004/2004.10236.pdf>]; see also discussion *supra* Section 4.

The way in which COVID-19 is counted is an example of where both functions merge. The counting is meant to be used to *account* for the presence of the disease.¹²⁶ It is also meant to provide the measure against which political decisions might be made, for example, eliminating "stay at home" rules" or economic closures.¹²⁷ Yet the numbers, which appear so solid because of the unassailable solidity of a number as an object whose meaning cannot be varied (three always means three), exist only in themselves. When one tries to give them meaning in context, that becomes far harder.¹²⁸

Where the *counting* rules vary, then a comparative *accounting* becomes impossible--though politically valuable. The value comes in when public entities are tempted to use numbers strategically to support political decisions and then seek to suppress numbers that might undermine their choices in favor of data that supports it.¹²⁹ It is a temptation to use the unassailability of numbers to hide what or misdirect, or better put, to manage numbers the way that infections of COVID-19 are managed through policies of stay in place rules.

Most affected countries have inadvertently under-reported deaths. Studying mortality data in 12 countries, *The*

¹²⁶ Teri Schultz, "Why Belgium's Death Rate Is So High: It Counts Lots Of Suspected COVID-19 Cases," NPR (22 April 2020); available [<https://www.npr.org/sections/coronavirus-live-updates/2020/04/22/841005901/why-belgiums-death-rate-is-so-high-it-counts-lots-of-suspected-covid-19-cases>].

¹²⁷ "Wolf administration clarifies metrics used for reopening Pennsylvania," NorthCentral Pa.com (26 April 2020); available [https://www.northcentralpa.com/life/covid-19_updates/wolf-administration-clarifies-metrics-used-for-reopening-pennsylvania/article_98cbf44a-8752-11ea-bf3f-ef71d66ee372.html].

¹²⁸ Alan Reynolds, "The Misleading Arithmetic of COVID-19 Death Rates," Cato at Liberty (2 March 2020); available [<https://www.cato.org/blog/misleading-arithmetic-covid-19-death-rates>].

¹²⁹ Kathleen McGrory, "Florida medical examiners were releasing coronavirus death data. The state made them stop," Tampa Bay Times (29 April 2020); available [<https://www.tampabay.com/news/health/2020/04/29/florida-medical-examiners-were-releasing-coronavirus-death-data-the-state-made-them-stop/>] ("The moves to withhold information comes at a sensitive moment for state leaders. Florida's coronavirus death toll is continuing to rise and state officials have begun talks about when and how to start reopening.")).

New York Times found that in March at least 36,000 more people died during the coronavirus pandemic than the official death counts.¹³⁰ These include deaths from the contagion as well as those from other likely causes. And a *Financial Times* analysis of overall fatalities during the pandemic in 14 countries found that the death toll from coronavirus may be almost 60% higher than reported in official counts.¹³¹

Numbers do not lie, but numbers do not speak truth either. They are objects and symbol of something that has meaning (three means three), but the significance of that meaning cannot be determined except within a specific context (three apples, three oranges in Spain and thirty oranges in Italy). The understanding of a number (as (a) sense or signification, (b) meaning or intention and (c) significance or ideal worth; Lady Welby, "Significs," in *Encyclopedia Britannica* (1911)) is also dependent on the way in which the number is given meaning.¹³²

In the case of COVID-19, that has proven hard to do. Cathy O'Neil nicely summarized her list of ten reasons to doubt the numbers.¹³³

1. The number of infected is close to meaningless. Only people who get tested can be counted * * *
2. The tests aren't accurate and the inaccuracies aren't symmetric.

¹³⁰See, Jin Wu, Allison McCann, Josh Katz, Elian Peltier and Karan Deep Singh, "412,000 Missing Deaths: Tracking the True Toll of the Coronavirus Outbreak," *The New York Times* (last updated 27 Nov. 2020); available [<https://www.nytimes.com/interactive/2020/04/21/world/coronavirus-missing-deaths.html>].

¹³¹ See, John Burn-Murdoch, Valentina Romei and Chris Giles, "Global coronavirus death toll could be 60% higher than reported: Mortality statistics show 122,000 deaths in excess of normal levels across 14 countries analysed by the FT," *Financial Times* (26 April 2020); available [<https://www.ft.com/content/6bd88b7d-3386-4543-b2e9-0d5c6fac846c>]. See also Soutik Biswas, "India Coronavirus: The 'Mystery' of Low COVID-19 Death Rates," *BBC* (27 April 2020); available [<https://www.bbc.com/news/world-asia-india-52435463>].

¹³² See, Lady Victoria Welby, "Significs," in Jan M. Broekman and Larry Catá Backer (eds), *Signs in Law—A Source Book (The Semiotics of Legal Education III)* (Dordrecht: Springer, 2013), pp. 43-49,

¹³³ Cathy O'Neil, "10 Reasons to Doubt the COVID-19 Data," *Bloomberg Opinion* (13 April 2020); available [<https://www.bloomberg.com/opinion/articles/2020-04-13/ten-reasons-to-doubt-the-covid-19-data>].

In particular, they produce many more false negatives than false positives * * * 3. The number of tests doesn't equal the number of people tested. Because the tests are so inaccurate, some people get tested twice to be more sure of the results.* * * 4. The numbers aren't in sync. People sometimes die weeks after being hospitalized, and they get hospitalized a week or more after testing positive for the virus.* * * 5. The meaning of hospitalization is changing.. * * * 6. Deaths aren't reported immediately or consistently.* * * 7. Deaths outside hospitals aren't being reported.* * * 8. The policy for attributing deaths isn't consistent. Once somebody is gone, why waste a valuable test?* * * 9. Officials may have incentives to hide coronavirus cases.... "Juking the stats"*** 10. What happens in one place, or on average, might not be applicable everywhere.¹³⁴

Note though that doubt does not suggest uselessness. Semiotics teaches that the numbers still have meaning, it is just that the meaning insisted by the character of the number is misleading, but may lead to something (else) of value. ¹³⁵

It in this context that numbers serve a critical role in triggering policy decisions, in providing the conditions necessary to justify governmental (or private) action or in justifying political positions, especially in the context of the competition among states eager to prove that their systems were better suited to meeting the crisis (by reference to triumph measured by numbers). The current contest between the

¹³⁴ Ibid.

¹³⁵ For example, Graeme Wood, "Iran Has Far More Coronavirus Cases Than It Is Letting On: The surprising number of Iranian government officials succumbing to COVID-19 offers a hint that the disease is far more widespread than the official statistics indicate," *The Atlantic* (9 March 2020); available [https://www.theatlantic.com/ideas/archive/2020/03/irans-coronavirus-problem-lot-worse-it-seems/607663/] ("Why would Iran lie? On February 21, Iran conducted the latest in a series of sham elections in which only government-selected candidates could run for office. To show disapproval, many Iranians refuse to vote, and as participation has dropped, the appearance of electoral legitimacy has dropped as well. Iran's government told its people that the United States had hyped COVID-19 to suppress turnout, and Tehran vowed to punish anyone spreading rumors about a serious epidemic. Forty-three percent of Iranians voted, unaware that the outbreak had already begun." Ibid.).

United States and China provides an ostentatious case in point.¹³⁶

COVID-19, of course, is not just about counting; it is also about keeping track. Some of it appears to be less problematic when measured against the old constraints on the state.¹³⁷ But surveillance has a large, and for some troublesome element as well. First tracking people's movements poses a challenge to old notions of privacy, whether the tracking is undertaken by the state¹³⁸ and elsewhere.¹³⁹ It is also undertaken by private enterprises. With respect to these, it has become clear now the ease with which large providers of mobile devices can turn those into tracking tools.¹⁴⁰

It is here, and for the most part only here, that there is a point of convergence between COVID-19 driven data based governance and the traditional discourse and human rights/constitutional principles. The European Union efforts under its regulatory/rights framework provides a nice example

¹³⁶ See Mark Moore, "China Questions US Handling of Coronavirus Amid Global Backlash," *The New York Post* (27 April 2020); available [https://nypost.com/2020/04/27/china-questions-us-handling-of-coronavirus-amid-global-backlash/].

¹³⁷ "Public health surveillance is the ongoing, systematic collection, analysis, and interpretation of health-related data essential to planning, implementation, and evaluation of public health practice. For surveillance of COVID-19, and the virus that causes it, SARS-COV-2, CDC is using multiple surveillance systems run in collaboration with state, local, territorial, and academic partners to monitor COVID-19 disease in the United States." CDC, Coronavirus Disease 2019 (COVID-19) CDC Website; available [https://www.cdc.gov/coronavirus/2019-nCoV/index.html]; for Europe, see European Center for Disease Prevention and Control, *Strategies for the surveillance of COVID-19* (April 2020)); available [https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-surveillance-strategy-9-Apr-2020.pdf].

¹³⁸ Amrita Khalid, "Utah's New COVID-19 Contact Tracing App Will Track User Locations," *Quartz* (23 April 2020); available [https://qz.com/1843418/utahs-new-covid-19-contact-tracing-app-will-track-user-locations/].

¹³⁹ Discussed above Section 4.

¹⁴⁰ See Emily Crane, "Will lockdown end by default? Data shows Americans in 44 states are venturing out more often and rejecting social distancing measures," *Daily Mail* (28 April 2020); available [https://www.dailymail.co.uk/news/article-8261219/Data-shows-Americans-venturing-despite-COVID-19.html].

of the engagement.¹⁴¹ These focus on the relation of data to the individual; it does not focus as well on data and the transformation of governance and democratic ordering. That is to be expected under a framework in which the individual and individual rights are centered but in which the use of data by collective entities is understood as a species of techniques with little effect on key principles that support the character of the political model adopted in liberal democratic states.¹⁴² And, indeed, that partial convergence of the framework for protection of individual liberties under constitutional and international frameworks suggests limited utility of old conceptions of such rights systems in the face of a technology of government the measures of which tend to fall between the cracks of that framework.

This brings one to a brief consideration of the second, and for our purposes far more interesting form is the role of modelling. Modelling takes data, develops premises of relationships between them and then constructs from this data and these presumed interactions a simulacra of the reality they are meant to mimic. By so mimicking, the model can then be used to study the character of the reality thus simulated, and, if comprehensive enough, can also be used to predict and to change the outcomes predicted. To simulate society is to reproduce it in ways that can be used to look back (for confirmation of the robustness of its characteristics) and to look forward to suggesting how the simulation will encounter and react to stimulus (for example a COVID-19 pandemic). The modeling project makes visible the mathematical recreation of our world through a process of reduction and essentialization of chosen key factors (data and relationships), rationalize these

¹⁴¹ European Data Protection Board, adopted Guidelines 04/2020 on the use of location data and contact tracing tools in the context of the COVID-19 outbreak (Adopted 21 April 2020); available [https://edpb.europa.eu/sites/edpb/files/files/file1/edpb_guidelines_20200420_contact_tracing_covid_with_annex_en.pdf].

¹⁴² But see, Council of Europe, *Respecting democracy, rule of law and human rights in the framework of the COVID-19 sanitary crisis*; *supra* ("The major social, political and legal challenge facing our member states will be their ability to respond to this crisis effectively, whilst ensuring that the measures they take do not undermine our genuine long-term interest in safeguarding Europe's founding values of democracy, rule of law and human rights." *Ibid.*, p.2)).

reduced and essentialized bits, and then develop a means of visualizing layers of essentialized responses in time.

Newer, “agent-based models” are like the video game SimCity, but with a rampaging pathogen: using computing power unimagined even a decade ago, they simulate the interactions of millions of individuals as they work, play, travel, and otherwise go about their lives. Both of these approaches have often nailed projections of, for instance, U.S. cases of seasonal flu.¹⁴³

Societies have moved from using big data based games for entertainment, to seeing in them the potential to re-create the entirety of a human society, and on that basis extending the ability of those with the power to do so to intervene in the affairs of (simulated) humanity. In effect, data driven pandemics now constitutes a form of time travel in which models carry us forward to alternative futures that can be embraced or avoided by traveling back in time from the outer temporal space of the model and correcting the factors that produced a specific temporal outcome.¹⁴⁴

What was once the realm of politics (choices) is now the stiff of statistics. Indeed, modeling turns politics from the subject --the means by which decisions are made and authenticated (in accordance with current theories of popular participation, however attenuated) to its object. In a political context dominated by models, politics and political decision making become the thing that must be managed and directed in accordance with the genius of the model. Politics moves,

¹⁴³ Sharon Begley, “Influential Covid-19 model uses flawed methods and shouldn’t guide U.S. policies, critics say,” STAT (17 April 2020); available https://www.statnews.com/2020/04/17/influential-covid-19-model-uses-flawed-methods-shouldnt-guide-policies-critics-say/[“Statistical model” refers to putting U.S. data onto the graph of other countries’ Covid-19 deaths over time under the assumption that the U.S. epidemic will mimic that in those countries. But countries’ countermeasures differ significantly. As the epidemic curve in the U.S. changes due to countermeasures that were weaker or later than, say, China’s, the IHME modelers adjust the curve to match the new reality.” Ibid.]

¹⁴⁴ See Sharon Brody and Derek J. Anderson, “Mass. General Hospital Builds COVID-19 Simulator To Help Predict Impact of Policy Decisions,” CommonHealth (26 April 2020); available [https://www.wbur.org/commonhealth/2020/04/26/mass-general-hospital-covid-19-simulator].

therefore, from the act of decision, to the act of model making and application.

One gets the sense, and one would not be wrong in sensing, that the politics of COVID-19 responses, and its structuring is now driven not by judgment based on data, but on the judgment of the models that are used to construct the alternative world scenarios whose reality is assumed and on that basis is used to make a determination of what ought to be imposed.

The epidemiological models of COVID-19's initial outbreak and spread have been useful. The Imperial College model, which predicted a terrifying 2.2 million deaths in the United States, agitated drowsy policymakers into action. The University of Washington's Institute of Health Metrics and Evaluation (IHME) model has provided a sense of the scale and timeline for peak hospitalization. Other models have estimated the effects of quarantine and of travel restrictions, or sought to find the pandemic's turning point. Despite some notable flaws, the epidemiological models have cumulatively had a beneficial effect on the national conversation. Their ability to incorporate some epidemiological knowledge and the limited available data led to better—and harder to dismiss or deny—predictions of the near future than mere guesswork would have allowed.¹⁴⁵

Where bad policy choices once called for better decision making within the normative structures of politics (liberal democratic or Marxist Leninist); now bad choices call for better models that is better simulacra. "Thousands of policymakers across the country, mostly at the state and local level, will need to decide where and when to re-open schools, ease business and social distancing restrictions, allow sports to resume, and make a myriad of other choices. * * * Existing models have been

¹⁴⁵ Alex Engler, "A Call for a New Generation of COVID-19 Models," *Brookings* (23 April 2020); available [https://www.brookings.edu/blog/techtank/2020/04/23/a-call-for-a-new-generation-of-covid-19-models/]; see also "New Model Forecasts When States Likely to See Peak in COVID-19 Deaths," *UT News* (17 April 2020); available [https://news.utexas.edu/2020/04/17/new-model-forecasts-9-states-likely-to-see-peak-in-covid-19-deaths-by-end-of-april/].

valuable, but they were not designed to support these types of critical decisions." ¹⁴⁶ Political decisions are calculated and driven by the model; politics is undertaken in the choice of the model, decisions about the way it is populated with data, and decisions about the relationships deemed critical in the process of reduction and essentialization that flattens lived reality to the simulation within which policy choices can be tested¹⁴⁷). The political classes--in this model (here used with the irony it has come to deserve)--are reduced to the administrators of the systems whose decisions they are charged with implementing.

There is a certain irony here. For years before COVID-129 there has been a chorus of people (me included) who warned about the dangers of simulation, of data driven governance, and of the Artificial Intelligence (AI) and big data models necessary to rationalize these into something "useful" even where they saw the utility in the project. The object, at its heart was to more closely align the new mechanics of governance and the new government it would birth, more closely with the normative values that appeared to still matter (or at least on the basis of which political collectives still officially adhered). But in the rush to "conquer" or "overcome" COVID-19, all of this has been thrown to the winds. Or at least those who were doing the warning have been sidelined in the rush to embrace, without the slightest hesitation, the suzerainty of the model as the chief vehicle through which a politics of pandemic could be rationalized, and thus understood, implemented.¹⁴⁸ In its place, one finds a politics of modelling--one that does not dispute the animating premise of the new governmentality; that the model must be obeyed--but one that

¹⁴⁶ Engler, *A Call for a New Generation of COVID-19 Models*, *supra*.

¹⁴⁷ Sharon Begley, *Influential COVID-19 Model*, *supra*.. See also, Giulia Giordano, Franco Blanchini, Raffaele Bruno, Patrizio Colaneri, Alessandro Di Filippo, Angela Di Matteo & Marta Colaneri, "Modelling the COVID-19 epidemic and implementation of population-wide interventions in Italy," *Nature Medicine* 26:855-860 (2020); available [<https://www.nature.com/articles/s41591-020-0883-7>] ("Predictive mathematical models for epidemics^{15,16,17,18} are fundamental to understand the course of the epidemic and to plan effective control strategies. . . Here, we propose a new mean-field epidemiological model for the COVID-19 epidemic in Italy that extends the classical SIR model, similar to that developed by Gumel and colleagues for SARS". *Ibid.*).

¹⁴⁸ Criticized in application in Jon McCloskey, "Why No COVID-19 Models Have Been Accurate, And How To Fix That," *The Federalist* (27 April 2020); available [<https://thefederalist.com/2020/04/27/why-no-covid-19-models-have-been-accurate-and-how-to-fix-that/>]

merely invests political power within contests for championing first the "right model" and then the "correct application" of that model.

As Nietzsche might suggest, our priestly class has broken the idols of our old gods and raised a new shiny, scientific and data driven god for the priests to serve as intermediary and on whose altar human society will be offered.¹⁴⁹ This is not done with evil intent; the opposite may well be true. But the intention is constant¹⁵⁰ and its priests are no longer political figures with direct connection to the people who they represent. Instead they are the researchers and technicians who now practice politics in their construction and tending of the models from which they derive their power and whose oracles are offered up to those with formal political power, who ignore them at their peril.

And the greatest irony--simulacra are as imperfect as the world it seeks to model. It reflects not just the flaws of the world simulated, but it may also amplify and distort those flaws in ways. There is already an awareness of the ways in which models may reflect. "The essence of these arguments lies in an important, and perhaps counter intuitive observation: Using data and technology in a decision-making process doesn't make a decision automatically free of problematic (and possibly illegal) social discrimination."¹⁵¹ But that produces a contradiction. A simulation is useful only to the extent that it reflects the world it models. But to model that world also reveals the disjunctions between its idealized view of itself, and the reality of the way that those ideals may have little or different connection with the actual behaviors of human actors.

Here one begins to see the way in which politics may insinuate itself in the production and use of models. It is at the stage where one determines what world the model will simulate--the world as it exists or the world as the models would like to exist. To create a simulation that reproduces an

¹⁴⁹ Friedrich Nietzsche, "The Antichrist," in (Walter Kaufmann (ed and trans) *The Portable Nietzsche* (Viking Press, 1968), 565-656, ¶ 42.

¹⁵⁰ "COVID-19 by Indian State," CDDEP; available [<https://cddep.org/tool/covid-19-by-indian-state/>].

¹⁵¹ Emily Shaw, "Avoiding Prejudice in Data-Based Decisions," Sunlight Foundation (31 July 2020); available [<https://sunlightfoundation.com/2015/07/31/avoiding-prejudice-in-data-based-decisions/>].

idealized reality is to further distort the simulation and to reduce its utility. It also suggests that simulation cannot avoid the embedding of politics--only that the politics is hidden within the premises and modalities of simulation construction. That is, that a simulation is used not merely to see how a specific set of factors have effects on communities or individuals; but at the same time how human and communal behavior relates to the ideal version of itself. As such, a simulation does not necessarily reflect reality but instead the reality of perfectibility.

But the politics of simulation is not evidenced merely by the way in which it relates to the tensions between the real and idealized version of the society it simulates. It also embeds politics in the way a simulation chooses to emphasize (amplify) certain human or individual characteristics and reduce others to a marginal space. This is not just a matter of data harvesting (the information that is used to build simulations and that which is ignored--a well-known issue), rather it is the way that this data is weighted and embedded within the mathematical relationships that together create a functioning simulations.

Thus, politics, and prejudice, filter into the construction of the mathematical relationships through which a simulation is constructed and then manipulated to aid in the construction of conclusions. This is unavoidable--the essence of simulation is essentialization that is in turn the expression of the need to reduce the complexity of reality to a manageable level. Reductionism, then, produces an important site for politics. The way in which one decides how and why reality is reduces; the choice of who makes those decisions; the way that reduction is expressed; the expression of the essential; these are the spaces in which politics is practiced in a world in which human society is managed through models. But note the consequence--where politics is now embedded in the construction of models, it no longer is centered on those who are formally vested with political authority--whether that authority is exercised through a Marxist-Leninist or a liberal democratic model.

The same applied to the use of the model. Part of the value of simulation is predictive. But prediction assumes that nothing changes. The real value of simulation is to test policies and other interventions before they are actually put into effect. How one chooses those interventions, how those interventions may be constrained by higher order values; how

those solutions may be guided by the political character of a society, and how those intervention reflect the customs and expectations of a society will make a great deal of difference. The way the range of choices are constructed, and the importance of these meta-principles serve to mold the spectrum of choices deemed plausible points to yet another point of politics in simulated governance.¹⁵²

Where the power to develop choice spectrum are delegated to technicians and modelers, those external constraints either disappear in the service of a "value free" choice spectrum is constructed, or more likely, the choice spectrum will reflect the personal views of the modeler. One has yet to consider the rules for testing those choice processes—except at the level of the ideal. There is much talk that aspects of modeling (AI; surveillance, data use, etc.) must conform with the highest ideals of society, but there is very little in embedding those ideals into the practices of simulation as a substitute for engagement in the real world which it is meant to serve. Where it is emerging, it assumes the role of descriptive coding, by providing the universe of assumptions and value (coefficient) instructions necessary to translate objectives into something quantifiable.¹⁵³

And here again metamorphosis. For the public international human rights community, for example, this means layering a chapeau of principle over data and analytics against which those projects might be held to account. The Working Group for Business and Human Rights, would, of course, insist that the principles of the UN Guiding Principles for Business and

¹⁵² Matissa Hollister, "AI Can Help with the COVID-19 Crisis—But the Right Human input is Key," World Economic Forum (30 March 2020); available [https://www.weforum.org/agenda/2020/03/covid-19-crisis-artificial-intelligence-creativity/].

¹⁵³ European Commission, "High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI," Report (8 April 2020); available [file:///Users/lcb911/Desktop/AIHLEG_EthicsGuidelinesforTrustworthyAI-ENpdf.pdf] ("it aims to offer guidance on the second and third components: fostering and securing ethical and robust AI. Addressed to all stakeholders, these Guidelines seek to go beyond a list of ethical principles, by providing guidance on how such principles can be operationalised in socio-technical systems."). See also, "Will Germans trade privacy for coronavirus protection?," DW (29 March 2020); available [https://www.dw.com/en/will-germans-trade-privacy-for-coronavirus-protection/a-52943225].

Human Rights¹⁵⁴ serve as the normative foundation for COVID-19 responses, including data driven responses.¹⁵⁵ The Working Group might also plead for analytics that prioritizes human rights based assumptions in the protection of business and its factors of production, principally labor.¹⁵⁶ Joined by others, the Special Rapporteur on the Right to development would press the case for development rights norms in times of COVID-19, here focusing on democratic participation in policy approaches to the pandemic, a sentiment that runs counter to the thrust of data driven modeling except to the extent that such a call for participation produces a new model for data gathering in its own right (that is to data gathering of public sentiment for inclusion in societal control models for example).¹⁵⁷ Likewise,

¹⁵⁴ United Nations, Guiding Principles for Business and Human Rights (NY and Geneva: UN, 2011).

¹⁵⁵ "The pandemic will eventually pass. States and business actors must use this moment to not revert to business as usual, but to forge a new normal based upon the globally agreed standard provided by the Guiding Principles." Statement by the UN Working Group on Business and Human Rights, "Ensuring that business respects human rights during the Covid-19 crisis and beyond: The relevance of the UN Guiding Principles on Business and Human Rights," (27 April 2020) Available [<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25837&LangID=E>].

¹⁵⁶ Press Release: "COVID-19: State and business respect for human rights critical to resilience and recovery, say UN experts," UN Human Rights website (28 April 2020); available [<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25836&LangID=E>] ("As governments scramble to extend a financial lifeline to struggling businesses, any financial support or bailouts should come with a clear requirement – to commit to respect human rights and dignity of people," quoting Anita Ramasastry); Press Release: "Every worker is essential and must be protected from COVID-19, no matter what – UN rights experts," UN Human Rights Website (18 May 2020); available [<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25892&LangID=E>] ("We are also deeply concerned about the disproportionate risk presented to workers that are low-income, minorities, migrants, older persons and those with pre-existing health conditions, women, as well as the informal sector and those in the 'gig' economy.").

¹⁵⁷ Press Release: "Leave no one behind" – Don't forget your commitments in your response to the COVID-19 crises, UN expert urges States," UN Human Rights Website (9 April 2020); available [<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25786&LangID=E>] ("Alfarargi called on all governments to enable disadvantaged and marginalised and vulnerable individuals and groups to meaningfully participate in decision-making processes. "This is essential to overcome structural inequalities and discrimination, to

the UN's Independent Experts might urge protection of identifiable traditionally marginalized groups in the development of policy models, for example sexual minorities,¹⁵⁸ severe labor exploitation in the form of so-called modern slavery,¹⁵⁹ corruption,¹⁶⁰ and the way that models value effects and outcomes against each other.¹⁶¹ Independent experts could

ensure their place as key actors in the development of countries, and to ensure the equal sharing of benefits.””).

¹⁵⁸ Statement: “COVID-19: The suffering and resilience of LGBT persons must be visible and inform the actions of States,” UN Human Rights Website (17 May 2020); available [https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25884&LangID=E] (“COVID-19, and the measures taken to address it, exacerbate inequalities and discrimination. The existence of criminalization laws, for example, makes LGBT persons more vulnerable to police abuse and arbitrary arrest and detention in the context of movement restrictions and curfews.”); Press Release: “‘States must include LGBT community in COVID-19 response’: The how and why from a UN expert,” UN Human Rights Website (17 May 2020); available [https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25889&LangID=E] (“Madrigal-Borloz said that States should ensure that pandemic-related measures are not discriminatory and are designed with the participation of LGBT communities, and ensure accountability for arbitrariness and abuse.”).

¹⁵⁹ Press Release: “Governments must do more to prevent slavery and exploitation during COVID-19 pandemic,” UN Human Rights Website (30 Nov. 2020); available [https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26552&LangID=E] (“To ensure that no one is left behind as a result of the COVID-19 pandemic, States must increase their efforts to identify and protect victims of slavery and trafficking, including by ensuring their access to essential health services, including reproductive health services, psycho-social counseling, legal assistance, vocational training, income-generating support and remedies without discrimination.”).

¹⁶⁰ Press Release, “COVID-19 highlights deadly cost of corruption and the urgent need for companies to respect human rights: UN experts,” UN Human Rights Website (9 July 2020); available [https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26064&LangID=E] (““Targeted sanctions, asset freezes and visa denials can be used against individuals who perpetrate human rights abuses and/or engage in corrupt acts. Public procurement laws must ensure that taxpayer funds are not given to companies that pay bribes and commit fraud, and that government contracts go to those that respect human rights.””).

¹⁶¹ Press Release: “Chile must prioritise water and health rights over economic interests, says UN expert,” UN Human Rights Website (20 August 2020); available [https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26177&LangID=E] (“Since 2016, residents have been allocated 50 litres of water per person per day; water is delivered in uncertified

make a case against the valuation of human life inherent in triage in the form of a transformation of the right to life as immeasurable, not just with respect to fetuses but to the aged as well.¹⁶² Together these read like instruction of coders and those constructing models on which policy will be based. And that is their greatest point of effectiveness. Despite their reactionary and anachronistic thrust (almost invariably seeking to induce states to draft more laws), the real value of these efforts is to serve as the normative baseline, and to articulate the objectives and assumptions, through which model makers and coders can develop analytics and identify relevant data. And that in itself transforms the enterprise of societal organization in a fundamental way.

For all that, there is a certain comfort to this data driven turn, one that might have raised hackles in almost any other context in which political decisions are being made. This is a culture well trained in the certainty of science and the power of quantification as inherently less ambiguous and deceptive than words. They provide our contemporary wizards with the power to "read the past, present, and future in accordance with numbers and computations" (Crosby, *supra*, p. 124) based on the faith that reality is mathematical (*Ibid.*, p. 123). That is simulations can be used to create our world in a form in which it is possible to travel in time and in so doing to change predicted outcomes by changing present responses now makes those of us with power feel like we (they) might wield the power of the gods. That the power is flawed and imperfect is of little moment in terms of its utility for exercising power.

tanker trucks and sometimes is so unsafe it gives children diarrhoea. "This is not enough to meet the usual domestic needs during the pandemic," Heller said. "The Chilean Ministry of Health recommends frequent hand-washing as one of the most effective ways to prevent the spread of COVID-19, so the government must guarantee adequate water to everyone and ensure businesses do not undermine the State's ability to meet its obligations."").

¹⁶² Press Release: "No exceptions with COVID-19: "Everyone has the right to life-saving interventions" – UN experts say," (26 March 2020); available [<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25746&LangID=E>] ("Advances in biomedical sciences are very important to realize the right to health. But equally important are all human rights. The principles of non-discrimination, participation, empowerment and accountability need to be applied to all health-related policies."").

So if epidemiological models don't give us certainty—and asking them to do so would be a big mistake—what good are they? Epidemiology gives us something more important: agency to identify and calibrate our actions with the goal of shaping our future. We can do this by pruning catastrophic branches of a tree of possibilities that lies before us.¹⁶³

The model becomes the "Holy Spirit" of a magisterium of experts in whose hands decisions are now vested (for the analogy in contemporary religion.¹⁶⁴ And these are useful gods indeed—even better than the gods of law and theory; for these gods are less intelligible; they are immanent within the algebraic formulations of mathematically driven reductionist relations, and they may be only interpreted, constructed and applied by a priestly class whose power is now assured. These are the matters that ought to give us all pause; but not panic. That pause need not be directed toward a reactionary effort (and on pursued ultimately in vain) for the return of the old order. It is far too late for that (and in a sense that effort also constitutes a sort of simulation of nostalgia). It ought to be directed toward the principles on which our new high priests of modelling, and their control of the political collective can be constrained and made responsive to whatever higher order set of principles we believe, as a collective, express our (and the ultimate irony here) essence.

B. Simulating Politics in the Shadow of COVID-19: " 'like the school nurse trying to tell the principal how to run the school'.

The COVID-19 pandemic has also cast a stronger light on the inter-relationship between quantification and technology. The difference between the expression of the lust to quantify, our *concupiscentia carnis*,¹⁶⁵ today, and that of a century ago might be understood as a function of capacity. But

¹⁶³ See Zeynep Tufekci, "Don't Believe the COVID-19 Models," *The Atlantic* (2 April 2020); available <https://www.theatlantic.com/technology/archive/2020/04/coronavirus-models-arent-supposed-be-right/609271> ("In our time, however, the problem is sometimes that people believe epidemiologists, and then get mad when their models aren't crystal balls." Ibid.)

¹⁶⁴ see, e.g., "The Holy Spirit's Assistance to the Magisterium in Teaching: Theological and Philosophical Issues," *CTSA Proceedings* 51:125-142 (1996).

¹⁶⁵ I John ii:16.

not just capacity--also the capacity to embrace quantification, and its power to simulate, as a moral positive.¹⁶⁶ I also spoke to the essence of simulation in reductionism (e.g., one must reduce a phenomena to its essence) and to the discretionary perils of essentialization (e.g., what and how phenomena are reduced speaks as much to the viewer as to the thing viewed).

Ultimately I spoke to the power of simulation as both *the form* through which the world is seen and manipulated, and as *the language* through which such formation and manipulation can be justified and the role of the manipulator authenticated. *Form* suggests the centrality of political discourse around models which structure not just the simulation of the context in which political decisions must be made, but also provide the *language* to be used to formulate and explain (and justify) the response in terms of the simulation itself.

While most political elites tend to be quite opaque about their engagements in this respect (especially those who most loudly claim to center transparency in governance--an irony which is both ordinary and profound in contemporary culture), the leading elements of American political culture now appear to embrace transparency. A recent story widely circulated provides a window on the way that the theoretical musings earlier elaborated are actually shaping the forms, discourse, and language of politics.¹⁶⁷ It is in this context worth considering the

¹⁶⁶ Larry Catá Backer, "Meaning Making and Making Meaning "Obvious": The Case of the Embrace of Surveillance in the Age of Pandemic," *Law at the End of the Day* (3 May 2020); available [https://lcbackerblog.blogspot.com/2020/05/meaning-making-in-new-era-of-pandemic.html]. There it was noted:

Here one speaks to the formation of surveillance as a cluster of ideas, techniques, principles and judgments that is obvious. The re-formation of surveillance as a set of obvious understandings, of common meaning, and with obvious moral value (good or evil) may be more significant than the legal debate about the structures for organizing surveillance and assigning authority over its implementation and oversight across public and private actors, more important than the political and economic debate about surveillance. And yet the construction of the obvious--of surveillance as a set of significations with moral value that then drive economic, political, and legal debates--may be overlooked. (Ibid.).

¹⁶⁷ See Frances Mulraney, "Trump administration officials thought COVID-19 death toll would never reach 60,000 and that medical experts caused the

way that the reporting illustrates the ubiquity of the simulation as the vehicle for politics, and the way that this has produced its own simulated politics. One version of the story follows (for another, [here](#)) and with it an elaboration of the eight (8) principal points I wish to make: 1. *There is still a tenancy to personalize simulation*; 2. *Simulations are understood as the way that values are now expressed*; 3. *The authority of simulations remain a function of class*; 4. *Simulation shifts the locus of politics*; 5. *Simulation substitutes quantified for moral authority or principle*; 6. *The more effective tools of politics are now quantifiable and predictive*; 7. *Simulation reduces the populace to silence*; and 8. *Simulation ultimately reduces the power of the leadership core*.

1. *There is still a tenancy to personalize simulation*. The usual seraglio politics of spaces that are effectively hermetically sealed (e.g., a Standing Committee of a Political Bureau, or an Office of a President) appear to shift their focus but not their target in a context where decisions are made around or through simulation. There is a tendency, then, to align, to *create an identity, between the simulation and the simulator*. It follows that the effective essence of this essentializing tool is the personal politics and ambitions of the simulator. In effect the simulation is an extension of the simulator as much as it is the modelling of the slice of reality from out of which a policy decision must be made. Simulations, then, are the masks worn by those who wish to hide personal agenda in the more neutral language of quantified reality.

2. *Simulations are understood as the way that values are now expressed*. To choose a particular form of simulation is to choose a set of values that are to be advanced by the simulation. But more than that, to choose a particular form of simulation is meant to foreclose any debate on the premises on which that simulation was chosen. *Choosing simulations is a form of choosing sides in a political contest*.¹⁶⁸ In the case of COVID-19,

president to overreact 'like the school nurse telling the principal how to run the school'," Daily Mail (3 May 2020); available [<https://www.dailymail.co.uk/news/article-8281555/Trump-administration-officials-thought-COVID-19-death-toll-never-reach-60-000.html>].

¹⁶⁸ See, John Leslie King and Kenneth L. Kraemer, "Models, Facts, and the Policy Process: The Political Ecology of Estimated Truth," Center for Research on Information Systems and Organizations (CRITO) Working Paper #URB-006 (1992); available

that necessary fragmentation was understood as separating out those who placed a greater value on economic simulation against those who would value health more. Both of course are after the same ultimate result--the maximization of the welfare of the American people--but each of their conceptual universes produce highly different pathways to that goal--and with those pathways quite different effects on individuals.¹⁶⁹ There is an analogy in international law--the fracture of the human rights listed in the Universal Declaration of Human Rights among two International Covenants. One was modeled on the principle that all economic, social, and cultural rights could only be realized through the primary protection of civil and political rights. The other that human rights could only be modeled on the basis that civil and political rights were merely the fruit of the attainment of robust economic, social, and cultural rights.

3. *The authority of simulations remain a function of class.* Class remains central to simulation. But by that one ought not to think of class in the simplistic (though valuable for the time) way that it is understood through a European Marxist-Leninist lens, or as the ecologies of societal rankings in the West. Rather one might better think of class as informal collectives built around societal markers of prestige and authority.¹⁷⁰ There is not a soul on Earth who is not trained in assessing these in accordance with the ranking rules of the society she inhabits. One's simulation is only

[https://escholarship.org/content/qt1c31s58g/qt1c31s58g_noSplash_a1518b0580ea1afa7c3d83a743ff4b1a.pdf]. Cf., Nathan Coombs, "Modelling Worlds: The Politics of Simulation," *The Disorder of Things* (12 August 2012); available [<https://thedisorderofthings.com/2014/08/12/modelling-worlds-the-politics-of-simulation/>].

¹⁶⁹ Cf., Özgür Özman, , James J Nutaro*, Laura L Pullum, Arvind Ramanathan, "Analyzing the impact of modeling choices and assumptions in compartmental epidemiological models ," *Simulation* 92(5): (2016); available [<https://journals.sagepub.com/doi/10.1177/0037549716640877>] ("Our study reveals that the magnitude and velocity of the simulated epidemic depends critically on the selection of modeling principles, various assumptions of disease process, and the choice of time advance."); Efstratios Georgakarakos, Christos V. Ioannou, Theodoros Kostas, Yiannis Papaharilaou, "The impact of model assumptions on results of computational mechanics in abdominal aortic aneurysm," *Journal of Vascular Surgery* 5(3):679-688 (2010).

¹⁷⁰ In the common understanding, see, e.g., Naphtali Hoff, "Being a Leader of Influence," *Huffington Post* (1 Feb. 2016); available [https://www.huffpost.com/entry/being-a-leader-of-influen_b_5529130].

as authoritative as one's standing within these prestige classes. This was nicely distilled in the reporting of the battle over COVID-19 models in the Trump White House: "One former senior administration official told the Post that the bloc looked at the health experts 'like the school nurse trying to tell the principal how to run the school'.¹⁷¹" This quote effectively tells one all on needs to know about simulation within a vertically structured social, political, and economic order. It is both refreshingly candid and quite rigid about what it suggests as the connection between simulation and authority.

4. *Simulation shifts the locus of politics.* Where politics once occurred around simulation (that is politics was exogenous to simulation), now politics occurs within simulation (that is it is now endogenous). One does fight about the use of politics--as a tool, as a measure of reality, as anything, really. Instead one fights about its assumptions, its constructions, and the evaluation of its predictive qualities as one shifts contingent factors that move the model in any direction.¹⁷² Where that becomes impossible (techno-expert capture in a modelling universe of hyper-silos) then that politics is undertaken through the construction of an alternative model. In this case, it was based on the availability of a health versus an economics centered model. These two models, like *condottieri* in 15th century Italy, then march around endlessly in battles of attrition in which total victory is impossible and unwelcome, but the marginal advantage decides the fate of all. This, then, is what the chronicles of the intrigues within the White House might be reduced to--and always the simulation in the background, and the foreground.

5. *Simulation substitutes quantified for juristic moral authority or principle.* Quantification and the simulations it produces have the great virtue of providing the authority that is necessary to

¹⁷¹ See, Frances Mulraney, "Trump administration officials thought COVID-19 death toll would never reach 60,000," *supra*.

¹⁷² A small but telling example from the U.K where Parliament was able to intervene in the roll out of an algorithm designed to determine both where new housing was to be built and the extent of local discretion in determining siting. See James Tapfield, "Tories hail U-turn on 'mutant algorithm' that sparked fears of planning free-for-all in the shires as Housing Secretary Robert Jenrick says shift WON'T wreck target of building 300,000 new homes a year," *Daily Mail* 16 December 2020; available [https://www.dailymail.co.uk/news/article-9059131/Tories-hail-U-turn-mutant-algorithm-shires-planning-revolt.html].

advance projects.¹⁷³ This virtue is especially important in the absence of either personal, moral or principled authority. In a sense, then, the rise of simulation is the strongest pointer to the decay politics. Politics can only be expressed with the reassurance of quantified and simulated reality in a context in which the old political institutions and structures, along with those eager to serve within them, no longer enjoy the level of trust necessary to buttress a political and societal system entirely on its own.

6. *The more effective tools of politics are now quantifiable and predictive; analytics can then substitute for markets.* Politics has lost its moorings in values and principles. Instead, it is now moored in outcome. And outcome is itself the managed product of simulation. This is neither new nor transformative: it is instead an intensification and deepening of tendencies already quite visible in politics globally. At its most profound level, data driven analytics presumes itself capable of superseding, or of becoming, the idealized simulation of markets.¹⁷⁴

¹⁷³ See, Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton: Princeton University Press, 1995). See also, Andrea Saltelli, "Ethics of Quantification or Quantification of Ethics?," *Futures* 116 (February 2020).

¹⁷⁴ Consider the argument of the development of algorithms in university admissions. See, e.g., Brian Rosenberg, "Can Algorithms Save Admissions?," *The Chronicle of Higher Education* (15 Dec. 2020); available [https://www.chronicle.com/article/can-algorithms-save-college-admissions] (suggesting reliance on something like "the Gale-Shapley algorithm to solve what is sometimes called the "stable-marriage problem." Put simply, the algorithm creates matches between two sets of elements given an ordering of preferences within both sets. It is designed to make happy marriages." Ibid.). Interestingly, even in this context, the object of the algorithm is to preserve service provision among colleges other than the most prestigious with respect to which markets remain a viable means of allocating students. That goes back to the relationship of algorithmic governance and class discussed supra. Similar patterns apply to COVID-19, for example with respect to the allocation of vaccines. See, National Academies of Sciences, Engineering, and Medicine, *Framework for Equitable Allocation of COVID-19 Vaccine* (Helene Gayle, William Foege, Lisa Brown, and Benjamin Kahn (eds); Washington, D.C.: National Academies Press, 2020); available [https://www.nap.edu/download/25917]. Here, data, logistics, administrative efficiency and legal mandates produce an environment in which allocation must be determined in accordance with the ideals of a simulated market driven by national welfare maximization principles whose expression is left to experts.

7. *Simulation reduces the populace to silence.* Simulation ultimately realigns democratic authority.¹⁷⁵ The ultimate outcome of a simulated politics is the intensification of the construction of the electorate (or the masses elsewhere) as passive stakeholders. But more than passive, simulation reduces the people to silence, the silence of an onlooker unable to understand the reality around her without the aid of those who can interpret the simulacra of reality and thus guide them toward an alignment of simulated and experienced reality. Principles are easy to engage--anyone can do it. Predictive analytics makes it harder for just anyone to participate.

8. *Simulation ultimately reduces the power of the leadership core.* Simulation indicates the rise of the machine (AI) and its techno-expert priests and the diminution of the populace as an effective political actor (even when measured from the cynical baselines of the end of the 20th century).¹⁷⁶ But it has a more pernicious effect--it can reduce the core leadership to a similar state. Core leaders exercise decision making power in a world of simulation, but it is the simulation (and their simulators) who actually wield the power to order (and manage) the reality within which decisions may be plausibly made. At the same time it opens a new venue for corruption--the reverse engineering of predictive simulation in the service of a decision seeking justification. In either case the authority of the core leadership can be diminished and with it another struct in the foundations of a political system.

C. Those who Must Bear the Burden of Modelling Anti-COVID-19 Measures..

The realities of containment as a mitigation strategy against the spread of COVID-19 has become the basis for national measures across the Globe. This was emphasized by the American official, Dr Anthony Fauci, the head of the infectious diseases unit at the National Institutes of Health in an explanation for transmission through global news media.

¹⁷⁵ Cf., Nikolas Rose, "Governing by Numbers: Figuring Out Democracy," *Accounting, Organization and Society* 16(7):673-692 (1991).

¹⁷⁶ Cf., Carmen Tanner, Adrian Brugger, Susan van Schie, and Carmen Lebherz, ""Actions Speak Louder Than Words: The Benefits of Ethical Behaviors of Leaders" *Journal of Psychology* 218(4):225-233, 225. (2010)

As the outbreak spreads, daily life has been increasingly disrupted, with concerts and conferences canceled and universities telling students to stay home and take classes online. To contain the outbreak in China, the government quarantined millions of people for weeks. Italy has announced similar measures, locking down 16 million people in the north of the country. Fauci said he did not think the US would impose total shutdowns - but said 'anything is possible'. 'We have to be realistic. I don't think it would be as draconian as nobody in or nobody out,' he told Fox News Sunday. 'But if we continue to get cases like this, particularly at the community level, there will be what we call 'mitigation,' where we have to essentially do social distancing, keep people out of crowded places, take a look at seriousness, do you really need to travel, and I think it's particularly important among the most vulnerable.'¹⁷⁷

This post briefly suggests the relevance of current work on linking human rights to private household indebtedness in the context of national macro-economic regulation to the question of the human rights effects of public and institutional free riding that occurs in the context of national measures to mitigate contagion in ways the costs of which may be disproportionately shifted to the most vulnerable national populations. It questions the need for or fairness of developing policy for the collective good, the costs of which are shifted down to individuals who thus effectively subsidize collective policy twice--first through the taxes they pay and the obedience they give to state and enterprise. Second by having to bear personally the costs of that policy as it affects their livelihood and perhaps their health and well bring.

While many focus on macro issues with respect to the consequences of COVID.19 (and thus also of planning for future iterations of epidemics of known capacity), relatively little

¹⁷⁷ Megan Sheets, "Top coronavirus expert Dr Fauci says four million tests should be available by end of the week, as he warns Americans to avoid crowds and brace for quarantines as death toll rises to 21 with two new victims reported at Washington nursing home," *Daily Mail* (9 March 2020); available [https://www.dailymail.co.uk/news/article-8088669/Vulnerable-Americans-need-avoid-crowds-U-S-health-official-warns.html].

attention has been paid to the micro effects of the COVID-19 epidemic, and especially of its impacts on individuals who are neither large enterprises, rich states, or wealthy individuals or families. All of those creatures are quite capable of taking care of themselves--though their own folly may be as much a catalyst of triumph or disaster as any outside intervention. As for the factory worker, the school teacher, the office worker or lower level manager, for these individuals and their families, the risk and consequence parameters are of a slightly different order. Indeed, even the student, who must adapt to the policies of a university that is balancing the risks of operating as normal against the need to ensure the continued flow of income, will tend to balance those opposing choices against the valuation of the extent to which they might export the "costs" of the choices onto students (especially) with collateral subsidizes by faculty and staff.

In a sense, then, the *containment policies*--of states and enterprises, and of the communities drafted in support of their implementation--*represent an instance of free riding but with the polarities reversed*. In this case, it is the state, the enterprise, the social organization that achieves a benefit, indeed a substantial benefit on the beneficial action of others. And those "others" bear the burden directly by having to use their own resources to subsidize the effects of those policies of containment on their own (and their families) welfare. This is not to suggest that the policies are unnecessary or wrong. Indeed, containment has proven to be quite useful--especially when it is undertaken as part of a comprehensive prevention and mitigation strategy, to reduce the severity of the incidence of epidemic. But that success is not obtained for free, and the question of the equities of distributing its costs downward to those who are least able to bear those costs tends to be either ignored or overlooked.

It was in that context that it is worth looking with fresh eyes at the work of Juan Pablo Bohoslavsky, the UN the Independent Expert on Foreign Debt and Human Rights. His 3 January 2020 Report¹⁷⁸ provides a useful analysis of the national macro-effects of foreign debt.

¹⁷⁸ Pablo Bohoslavsky, "Report of the Independent Expert on the effects of foreign debt and other related international financial obligations of States on the full enjoyment of human rights, particularly economic, social and cultural rights" (A/HRC/43/45) (3 Jan. 2020); available [<https://undocs.org/en/A/HRC/43/45>]. See also Pablo Bohoslavsky,

In his 3 January 2020 *Report*, Bohoslavsky sought to understand the problem of debilitating individual debt as a form of societal free riding. That free riding takes place in a context in which states privatize their obligations to their citizens to ensure economic, social and cultural rights.

"82. . . . "At the core of this phenomenon lies so-called "financial inclusion", the colossal failure of States to ensure the realization of economic, social and cultural rights for all. The explosive increase in private debt is what has sustained aggregate demand and economic growth over the past decades, often at the expense of indebted households. Millions of people around the world transfer a significant part of their wealth and well-being to the financial sector, whose links to the real economy continue to erode, compromising shared prosperity and financial stability and security, and reinforcing inequality.

83. Private debt should not be contracted by individuals and households as a way to compensate for the State's obligations to protect, promote and fulfil human rights. Personal or household financial and other costs associated with the repayment of debt should be at such a level that the attainment and satisfaction of human rights are not threatened or compromised. Contracting and repaying debt or defaulting on repayment should not entail human rights violations."¹⁷⁹

His *Guiding principles on human rights impact assessments of economic reforms* (GPHRIA) suggests a framework for mitigating the free riding that is a necessary consequence of the framework within which global production has been organized and the role of the state transformed. The GPHRI Principles "underline the importance of systematically assessing the

"Guiding Principles on Human Rights Impact Assessments of Economic Reforms" A/HRC/40/57 (19 Del 2018); available [https://www.ohchr.org/EN/Issues/Development/IEDebt/Pages/DebtAndImpactAssessments.aspx] (hereafter "GPHRIA").

¹⁷⁹ Bohoslavsky, "Report of the Independent Expert on the effects of foreign debt and other related international financial obligations of States on the full enjoyment of human rights, particularly economic, social and cultural rights" (A/HRC/43/45) (3 Jan. 2020);, supra ¶¶82-83.

impact of economic reforms on the enjoyment of all human rights before decisions are taken to implement such reforms, as well as during and after their implementation." (Summary). The Principles "apply whenever economic reform policies may foreseeably result in impairment of human rights. These principles are likely to be most relevant in the context of acute economic and financial crises (reactive function)."¹⁸⁰

Whatever new thinks of the viability of a set of Principles to impose on states a human rights due diligence obligation similar to that imposed on enterprises under the UN Guiding Principles of Business and Human Rights, the framework sets out a useful approach for states faced with multiple and potentially conflicting risk mitigation obligations in the context of a disease based crisis. That is, it ought to help understand the way that mitigation of harm to the state or the enterprise, might at the same time augment the risk and burdens on vulnerable populations. State ought to have the responsibility of mitigating harm to their vulnerable populations as they consider plausible alternative approaches to the litigation of collective harm caused by disease. It is that balancing that remains elusive under current frameworks.

The object in suggesting the utility of the work of the Independent Expert on Foreign Debt and Human Rights is not necessarily to suggest yet another layer of human rights due diligence tied specifically to human rights as these have been woven together by the international community through the UN's Geneva apparatus. To some extent, the global community has already adsorbed a substantial number of variations of this fundamentally sound (but for the present incoherent set of approaches to the embedding of relevant human rights standards into the everyday activities of states and enterprises. Instead it is to suggest the transformative possibilities organized in ten points.

1. That notions of institutional free-riding (especially by states and economic actors) has become a problem with substantial consequences to the integrity of states and the viability of markets.

¹⁸⁰ GPHRIA ¶ 1, *supra*.

2. That the notions of free riding and its corrosive effects have, to date, been translated into the language and discourse of human rights, bound up within the legalizations of human rights in the two principle International Human Rights Covenants (and founded on the core non-binding premises of the Universal Declaration of Human Rights).

3. That contemporary reliance on the discourse of human rights by policy intelligentsia, while certainly providing a powerful vehicle for legitimization of the propositions developed, have also tended to de-center the *core harm* at the center of the issue presented in favor of the *elaboration of the abstraction* (human rights) applied to a process (due diligence) that ought to produce certain undertakings (a balancing of policy and consequence along the normative lines of substantive human rights) by states and enterprises.

4. And yet that care harm is worth re-centering, especially in the context of state actions in response to the threats of plague and mass disease with substantial mortality rates. Indeed, human rights as an elaborated abstraction, in this context, ought to be understood as the means through which states understand both the nature of a "harm" and its duty to mitigate or remediate that harm when it occurs as a result of actions it takes. At the same time, the harm principle reminds states that a practice of seeking the least harmful means of effectuating policy most robustly advances the welfare of the society over which it has been vested with responsibility (under whatever political-economic model that state is founded and operates).

5. The harm is exacerbated where it is a consequence of state policy that a seeks to benefit from avoiding the costs of its decisions, or of the undertaking of its collective responsibilities, by effectively *forcing individuals to bear the costs of collective decisions*. Here the state (through policies of containment in the context of CXOVID-19 and enterprises (in the context of risk mitigation decision making that either increases the risk of contagion to workers, or substantially burdens employees and others with the consequences of changes to business practices in the face of epidemic) adopts policies for the collective good in a way that is indifferent to the costs imposed on individuals.

6. States (and enterprises) would necessarily scoff at the idea that they might be free riding on vulnerable individuals. They might suggest that as the collective they are the embodiment of the individual, or that their primary duty is to the collective and that the basic bargain that caused the creation of the state involved the acceptance by individuals that that they might be harmed by (or have to bear individually the costs imposed collectively) on people by the state.

7. But these notions are in a sense absurd. One can accept, and even laud, the majesty of the state and its ruling apparatus, one can recognize the leadership role of a communist party or of a board of directors, and acknowledge that their duty (as leadership cores) to the collectives they serve. But that acknowledgement says nothing about the duty of these leadership cores to individuals, nor does it speak to the development of a duty by the core to ensure that the collective rather than individuals, bear collectively, the costs of policy decisions undertaken for the collective good. The two issues are quite distinct.

8. Thus the question of the authority of the state to forbid people from leaving their houses, or of enterprises to unilaterally impose new work requirements is quite distinct from the question of who ought to bear the consequences of those decisions. It is no longer as easy a matter to retain the authority to command these actions and then delegate their consequences to those least able to bear it.¹⁸¹ The better argument ought to be that the state (or the enterprise) the entity with the power to assert authority to compel obedience to those decisions ought

¹⁸¹ That was understood, implicitly, in the responses of states to compensate, however parsimoniously, their populations for the costs of shutting down significant portions of the national economy. See CARES Act, H.R. 748, 116th Congress (2019-2020); available [https://www.congress.gov/bill/116th-congress/house-bill/748] ("his division establishes the Paycheck Protection Program to provide eight weeks of cash flow assistance to small businesses through federally guaranteed loans to employers who maintain their payroll. Such assistance shall be to cover costs such as payroll, paid sick leave, supply chain disruptions, and employee salaries. The division further provides that certain amounts owed on such loans are eligible to be forgiven."); Birgit Spiesshofer, "COVID-19—A 'Hamilton Moment' for the European Union?," *Emancipating the Mind: Bulletin of the Coalition for Peace and Ethics* 15(2): (2020).

to bear the costs. The reality, today, however, is that state and enterprise are free to device whatever policy they feel necessary without the slightest worry that they (or their organizations) will have to pay for the harm causes or bear the costs of implementation.

9. Here at last one can begin to see the problem. It is not that the people trapped on cruise ships, or forced at the expense to produce value for enterprises in new ways, or prohibited from traveling, or denied access to good and services ought to be free to disregard these policy directives. Rather it is that those with the power to impose them (for the greater good) also ought to bear the costs of attaining that good. To shift the costs to individuals not only produces harm; it may well produce human rights harm.

10. At the same time, a state and an enterprise might have an obligation to mitigate the harm that is caused by a policy choice.¹⁸² That can be undertaken by the now well-worn least restrictive means principle. That is a state or enterprise might be obligated to mitigate risk of harm to individuals by choosing from among alternatives to positive collective objectives, the one that causes the least individual harm. That is the one in which the state (or enterprise) minimizing its free riding to implement its policy goals). This is especially important in crisis events around infectious diseases like COVID-19. And yet that discourse is nowhere now to be found either within that of liberal democracies or those of Marxist Leninist States. A pity.

6. *Metamorphoses*.¹⁸³

This essay begins with Ovid and ends with Lucretius: *nam quodcumque suis mutate finibus exit, continuo hoc mors est illius quod fuit ante* [For if anything is so transformed as to overstep its own limits, this means the immediate death of what it was before].¹⁸⁴ *Metamorphoses* served as the theme of this

¹⁸² See discussion, *supra*., at notes 152-160.

¹⁸³ With irony: "Now stands my task accomplished, such a work as not the wrath of Jove, nor fire nor sword nor the devouring ages can destroy." Ovid, *Metamorphoses* (A.D. Melville (trans.) Oxford, 1986(c. 14 A.D.)), p 379.

¹⁸⁴ Titus Lucretius Carus, *De Rerum Natura* [On the Nature of Things] i. 670-1 (also i.792-3, ii. 753-4, and iii. 519-20) (also translated as "For change

essay, in its senses of change of form or shape. Metamorphoses is the signature marker of COVID-19 on the bodies of individuals and on their collective organizations. Yet to that theme of transformation is a moral—and that is supplied by Lucretius: that which has changed shape cannot ever assume its prior form. To is no longer capable of assuming its prior form. Metamorphoses augur the passing of one thing as it becomes another. That it retains the husk of what came before of little moment. It provides a (vain) hope for reactionary tendencies of those in human collectives who walk looking backwards, and it constrains those who by looking forward only (falsely) believe that transformation detaches the emerging essence from the husk of its past.

This essay has suggested the metamorphoses of COVID-19 on human institutions and the cultural premises on which they are founded. To that end, it has, like Ovid, started with origin stories. COVID-19 has played a central role in the transformation of societal self-conception, and on the authority of those forces that may speak to origins and their ordering power. But the great metamorphoses touch every aspect of the great structures of human (collective) organization as well as of individual (self) conception within the collectives in which they inhabit. Origins are a mirror of the societal self. It is at once an interior gaze (how a collective sees itself through its own “eyes”) and a projected gaze (how the collective expects others to “see” it). The seeing is not an objectification so much as it is the incarnation of the spirit of the place—its anima and animus exposed and raw in the face of deep challenge.¹⁸⁵ But it is also how one projects self-conception to others. In that respect as well COVID-19’s battle of the origin stories reveals as much about how states as moral orders see themselves and how they have come to expect others to see them.

in anything from out its bounds means instant death of that which was before”; from *On the Nature of Things* (William Ellery Leonard (trans.) Project Gutenberg ebook #785 (2008); available [<http://www.gutenberg.org/files/785/785-h/785-h.htm>]).

¹⁸⁵ As well as its archetypes. See generally, Carl Jung, “The Concept of the Collective Unconscious,” (RFC Hull (trans) (1936) reproduced at Bahaistudies.net; available [<http://www.bahaistudies.net/asma/The-Concept-of-the-Collective-Unconscious.pdf>]. . Cf., Carol L. Berzonsky, and Susanne C. Moser, “Becoming homo sapiens sapiens: Mapping the psycho-cultural transformation in the Anthropocene,” *Anthropocene* 20:15-23 (2017).

And what is the self that society is becoming? That, in part emerges from what COVID-19 responses reveal in the areas considered. COVID-19 has revealed the authoritarian instincts not just of Marxist-Leninism, but that of liberal democracies when moments of stress reveals the underlying foundations. But that revelation of authoritarianism actually serves more pointedly to reveal not merely the embrace of authority (for that is what, in its essence what one speaks of when invoking the ideology authoritarianism), but of the arrangement of unquestionable authority vertically arranged. In Marxist Leninist states those structures revolve around interlocking leadership cores up a chain of command. In liberal democratic states it revolves around the unquestionable authority of knowledge keepers and technocracies.

COVID-19 has transformed morals. The moral panic¹⁸⁶ that is COVID-19 has exposed a view of the value of the most vulnerable. It has transformed the notions of social self-preservation (collectively) and then mimicked at the level of the individual, that is founded on notions of strength, power, and wealth. The morality of herd culling has been a strong undercurrent of COVID-19—as policy and individual choice. As well the morality of hierarchy, and the end of moral leveling—has also been exposed. That immorality touches not just on decisions of treatment and protection hierarchies, but as well on the way that government distributes the burden of responding to COVID-19. Taken together, these transformations suggest the emerging immorality of horizontal equity and of the equality of the individual.

There is a connection between the movement of morals and that of governance. COVID-19 has changed the shape and form of governance, of law and jurisprudence, and of the structures of governance. The husk of old law remains of course. Government appears unchanged. It still speaks through the arcane idioms of legislation, regulation, and jurisprudence,

¹⁸⁶ Cf. Sander L. Gilman, “Moral Panic and Pandemics,” *The Lancet* 375(9729):1866-1867 (29 May 2010); available [https://www.thelancet.com/journals/lancet/article/PIIS0140673610608628/fulltext?rss=yes&utm_source=twitterfeed&utm_medium=twitter] (“A pandemic or an epidemic is actually not only how widespread a disease actually is, as Chan implied, but rather how it is perceived. . . . Real infectious diseases do have a powerful psychological effect. SARS quickly became a “moral panic”, which spread worldwide, being accompanied by a true sense of stigma.”).

enforced through its structures of coercive authority. And yet, it operates now through the digestion of data. Data feeds systems of rewards and punishment grounded in values based analytics. Data also feeds models—the models used to construct scientific approaches to policy. These are, in turn, reification of ideal states concocted by those who deploy armies of coders and modelers to their tasks. It is in this way that the virus armies of COVID-19 have infected the body politics, and its collective expressions in other collective organizations.

And before these changes the populace stands mute. There is no other recourse in a context in which simulation substitutes for engagement, and the greatest value of the individual is as a disaggregated producer of data, and an object of transformation to fit closer to a simulated ideal state. And that individual has become passive and poor—dependent.¹⁸⁷ More tellingly, Societal collectives have more clearly revealed the relationship between the individual and the collective—irrespective of the ideological political order in which they may be situated. It is to leadership cores that the authority to take risks is increasingly vested. That authority may be exercised personally or through data driven analytics. The risks of that exercise, though, is borne by the masses. The nature of engagement has been transformed as well—from expressive politics, to data generation—from the active to the passive principle of political connection to the apparatus of the state, now more clearly revealed, in turn, as the product of an ecology of simulation.

The populace may find comfort in the reassurances, made by those with the power to do so, that people and their collective organizations will soon return to their prior conditions. Yet it may prove a formidable task to reanimate that corpse: “*continuo hoc mors est illius quod fuit ante.*”¹⁸⁸ Perhaps one might take from this a final moral—the COVID-19 virus

¹⁸⁷ See, e.g., “UN: Pandemic Pushed 32M People into Extreme Poverty,” *NewsMax* (3 Dec. 2020); available [https://www.newsmax.com/newsfront/pandemic-united-nations-extreme-poverty/2020/12/03/id/999799/]; Rusty Woo Yuniar, “Pandemic wipes out years of progress on Asian poverty, from Indonesia to the Philippines and Thailand,” *South China Morning Post* (13 Dec. 2020); available [https://www.scmp.com/week-asia/economics/article/3113654/pandemic-wipes-out-years-progress-asian-poverty-indonesia].

¹⁸⁸ Titus Lucretius Carus, *De Rerum Natura* [On the Nature of Things], *supra*, i. 670-1.

has, in fact, reduced human society to a mere reflection of its nature, its purpose, and its methods. To understand society post-COVID-19 one may well have to study more closely the structures and organization of the communities of COVID-19 virus.¹⁸⁹ The autopoiesis¹⁹⁰ of the virus and of the human communities within which it now forms a relationship, may well reveal alignments that are worthy of further study.¹⁹¹



¹⁸⁹ Here Niklas Luhmann might prove helpful. See Niklas Luhmann, *Introduction to Systems Theory* (Peter Gilgan (trans) Cambridge: Polity Press, 2013).

¹⁹⁰ Here one necessarily moves beyond the traditional notions of self-reflexivity within the husks of societal systems unmarked by the system transforming effects of COVID-19. Autopoiesis retains a connection with the old forms, Cf., Gunther Teubner, *Law as an Autopoietic System* (Oxford, 1993), "but its internal structures have produced a creature that is quite changed."

¹⁹¹ See, e.g., Michael Rempel, "Power/Knowledge: A Foucauldian Reconstruction of Niklas Luhmann's Systems Theory," *International Journal of Sociology and Social Policy* 16(4):58-90 (1996).

C. Essays

Comparative Analysis of the Best Responses to COVID-19

Jordan Alkaabi¹

1. Introduction.

On January 9th, 2020, the World Health Organization announced a mysterious virus related to Pneumonia in Wuhan, China². The virus was a strain from the same coronavirus that caused Severe Acute Respiratory Syndrome in 2003 and Middle East respiratory syndrome in 2015. What made COVID-19 different from MERS and SARS is the higher infection rate and the fact that over 40% carry COVID-19 are asymptomatic³. The virus took the world by surprise, including developed countries and regions with advanced medical technology like the US and Italy⁴. A combination of adequate policies and advances technology are both essential for successfully managing COVID.

The states and regions chosen in this article⁵ each had an excellent response because they applied a set of economic, health,

¹Penn State School of International Affairs (MIA expected December 2020).

² "WHO Statement Regarding Cluster of Pneumonia Cases in Wuhan, China." WHO, World Health Organization, 9 Jan. 2020, www.who.int/china/news/detail/09-01-2020-who-statement-regarding-cluster-of-pneumonia-cases-in-wuhan-china.

³ "COVID-19, MERS & SARS." National Institute of Allergy and Infectious Diseases, NIAID, 18 Aug. 2020, www.niaid.nih.gov/diseases-conditions/covid-19.

⁴ MacMillan, Margaret. "Making History: How a Pandemic Took the World by Surprise." *The Globe and Mail*, Phillip Crawley, 8 May 2020, www.theglobeandmail.com/opinion/article-making-history-how-a-pandemic-took-the-world-by-surprise/.

⁵ Those countries or regions selected include Taiwan, South Korea, Australia, Canada, and New Zealand. The choice was based on *Eurasia Group* assessment of best responses to COVID. More info in "ideological framework" section.

and technological strategies. Some digital strategies include a robust contact tracing system and Artificial Intelligence (AI) for more efficient data management⁶. Standard health measures include supporting science and scientists, aggressive testing, international border control, mask-wearing mandate, coordination with the World Health Organization (WHO), and protection of Healthcare Workers (HCWs).

Finally, countries and regions chosen for examination in this article applied economic plans with fiscal and monetary policies that helped the most impacted individuals and communities, empowered Small and Medium Enterprises (SMEs), and reduced international trade barriers. The first section of the research will deal with the unique challenges and experiences each of the selected states or regions had to deal with to overcome the COVID-19 pandemic. The second section will analyze the similarities and differences in their strategies. Finally, the article will conclude with a set of recommendations to transform these experiences and strategies into policies that can help nations and regions suffering from coronavirus or any other form of contagious diseases in the future.

2. Ideological Framework.

The choice to analyze Taiwan, South Korea, Australia, Canada, and New Zealand as one of the best global responses to COVID was based on Ian Bremmer and Eurasia Group Assessment. On June 12, 2020, Ian Bremmer published an article titled "The Best Global Responses to COVID-19 Pandemic⁷." Ian Bremmer is the president of Eurasia Group, a political-risk consultancy, and GZERO Media, a company dedicated to providing intelligent and engaging international affairs coverage. He teaches applied geopolitics at Columbia University's School of International and Public Affairs. Ian Bremmer and Eurasia Group assessed to find who had the best initial response to COVID and are more prepared for coming next. Eurasia Group assessment concluded that the following countries or regions (Taiwan, South Korea, Australia, Canada,

⁶ Kent, Jessica. "How Artificial Intelligence, Big Data Can Determine COVID-19 Severity." *Health IT Analytics*, Xtelligent Healthcare Media, 15 June 2020, www.healthitanalytics.com/news/how-artificial-intelligence-big-data-can-determine-covid-19-severity.

⁷ Bremmer, Ian. "The Best Global Responses to COVID-19 Pandemic." *Time*, Time USA, 12 June 2020, www.time.com/5851633/best-global-responses-covid-19/.

and New Zealand) had the best initial response to COVID. Eurasia Group's top experts developed a metric system based on COVID response effectiveness.

The rank ordering of effectiveness was done by Eurasia group top experts in each field. The order of effectiveness given to a national or regional response was based on qualitative and numeric metrics. Eurasia Experts developed three metrics, then allocated identified states or regions to quartiles based on those metrics. The first metric was around health measures and included mobility and testing performance scaled by population. The second metric was government effectiveness based on authorities' efforts, public cooperation, and domestic and international coordination. Finally, the third category focused on economic, fiscal, and monetary economic policies relative to financial gaps and starting position before COVID. Experts According to Eurasia Group assessment, as of June 2020, the best initial global responses to COVID are Taiwan (433 cases, seven deaths), Singapore (38,965 cases; 25 deaths), South Korea (11,902 cases, 276 deaths), Australia (7,276 cases, 102 deaths), Canada (98, 645, 8035 deaths), New Zealand (1502 cases, 22 deaths) and Singapore (38,965 cases; 25 deaths)⁸. The number of cases and death was derived from John Hopkin University and was not included as a criterion in the Bremmer model⁹. While the Bremmer model provides an excellent base for this research, combining its results with John Hopkin's data provides a better look at how well those countries and regions are doing in their responses.

Another theory used in this research is the Kluth model of contact tracing¹⁰. COVID-19 made it very important for the public mass to share their health condition with governing bodies. Considering this development, three main contact tracing models have surged according to Kluth: the American, the Chinese, and the German Model. In the American model for

⁸ Bremmer, Ian. "The Best Global Responses to COVID-19 Pandemic." *Time*, Time USA, 12 June 2020, www.time.com/5851633/best-global-responses-covid-19/.

⁹ "COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)." JHU, John Hopkin University & Medicine, 2020, www.coronavirus.jhu.edu/map.html.

¹⁰ Kluth, Andreas. "If We Must Build a Surveillance State, Let's Do It Properly." *Bloomberg*, Bloomberg, 22 Apr. 2020, www.bloomberg.com/opinion/articles/2020-04-22/taiwan-offers-the-best-model-for-coronavirus-data-tracking.

collecting digital information, data is considered free by default unless the user opts. Giant tech companies collect data for research and development. The government can have the information only in case terrorism, crime, or a virus spread. In the German approach, the data is strongly protected and belongs entirely to the user. The user must actively consent to share their information. The Chinese model is more aggressive in digital data collection than the American and the German model. In the Chinese model, the data collected by private companies in China, such as Huawei and Ali Baba, assumed to belong to the government. The data include everything from face recognition, fingerprints, credit card records, and others. China ties those data to a social credit system and gives people a color based on the obligation to quarantine¹¹. These three models will be used as a prototype, but that does not mean that all countries or regions use one of them exclusively. In most cases, a mixture of all these approaches were used to maximize response effectiveness, with the goal of contact tracing without losing public corporation and trust.

Another hypothesis is the Nudge theory by Richard Thaler. In his book “Nudge: Improving Decisions about Health, Wealth, and Happiness,” Thaler defends libertarian paternalism and active engineering of choice architecture. The idea of libertarian paternalism is that it is possible for public and private institutions to “nudge” people's behavior toward the right decision while respecting their freedom of choice. An example Thaler brings in is organ donation. Thaler suggests that in order to increase organ donations, the government must mandate a choice program when people apply for their driver's license to choose if they want to donate organs or not. Simultaneously, the government must establish websites and marketing campaigns to nudge people to donate their organs when applying for driver licenses. In this example, people's ability to choose is still present, but they were nudged to decide to help save lives¹². In the context of best responses to COVID,

¹¹ Backer, Larry. “ Automated Law and COVID-19: Data Driven Measures With National Characteristics In China and Israel and the Future of the Law-Governance Complex .” *Law at the End of the Day*, 24 Mar. 2020, www.lcbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html.

¹² Thaler, Richard H., and Cass R Sunstein. *Nudge: Improving Decisions About Health, Wealth, and Happiness*. Rev. and expanded ed. New York: Penguin Books, 2009. Print.

some places applied libertarian paternalism to nudge people to participate in contact tracing or sanitize and wear a mask in public spaces. For example, New Zealand did not make downloading the contact tracing app mandatory. However, they nudged people toward downloading it by advertising, relating the app to saving lives and ending the pandemic. As of September 2nd, 2020, about 50% of New Zealanders downloaded the contact tracing app¹³. Thaler theory is critical because it could help regions or countries nudge people toward making better choices that will end the pandemic, concurrently it will not impact people's freedom of choice.

The final relative theory is regarding the effectiveness of contact tracing. On April 16th, the University of Oxford published a promising study on utilizing digital contact tracing to stop the spread of COVID¹⁴. The research conclusion started with a controversial statement, "Our models show we can stop the epidemic if approximately 60% of the whole population use the app and adhere to the app's recommendations.". Media and some politicians concluded that we could not achieve a functional contact tracing system without 60% of the population corporation. However, even the writers of this research admit that the research conclusion has been profoundly misunderstood. Andrea Stewart, an Oxford spokeswoman, explains that any contact tracing from 20% to 56% can significantly slow the epidemic. Stewart argued that some readers focused too much on the 60% mark and ignored the rest of the conclusions. The research concluded, "Even with lower numbers of app users, we still estimate a reduction in the number of coronavirus cases and deaths." Fraser, the research co-lead, said his research assumed a smaller percentage means little benefit. However, later simulations showed that a 20 to 56% adoption rate is also significant¹⁵. Fraser assured the

¹³ Blake-Persen, Nita. "2.1 Million Download Covid Tracer App, but Who Is Signing in?" *RNZ, Radio New Zealand*, 2 Sept. 2020, www.rnz.co.nz/national/programmes/checkpoint/audio/2018762292/2-point-1-million-download-covid-tracer-app-but-who-is-signing-in.

¹⁴ "Digital Contact Tracing Can Slow or Even Stop Coronavirus Transmission and Ease Us out of Lockdown." *University of Oxford, University of Oxford*, 16 Apr. 2020, www.research.ox.ac.uk/Article/2020-04-16-digital-contact-tracing-can-slow-or-even-stop-coronavirus-transmission-and-ease-us-out-of-lockdown.

¹⁵ O'Neill, Patrick. *Technology Review*, MIT Technology Review, 5 June 2020, www.technologyreview.com/2020/06/05/1002775/covid-apps-effective-at-less-than-60-percent-download/.

significance of the number in a recent interview and said that his team is currently working on a numerical model that could further explain it.

3. Methodological Framework.

The methodology chosen follows from the basis for selecting South Korea, Taiwan, Australia, Canada, and New Zealand; it is meant to examine the basis for the Eurasia Group's assessment that those countries and regions had among the best initial global responses to COVID. The paper does not seek to measure who had the best responses to COVID globally. Instead, this research switches the focus to understanding the policies and actions that those places applied, which made them recognized at a global level by political-risk consultancies like Eurasia. This analysis aims to compare the selected national or regional pandemic strategies and transform their experiences into lessons and policymakers' recommendations. Another reason for selecting those states or regions and not others is data availability. The selected places had government websites and other e-platform to access their strategies when this research was written (early June). Those e-platforms included various tools that aided my research, such as easy access to economic response plans and health strategies. Information availability and accessibility impacted the decision to choose these countries or regions.

The first part of this research will provide an overview of how Taiwan, South Korea, Australia, New Zealand, and Canada responded to COVID, starting with their respective responses from the initial case. Understanding each government's timeline will help later facilitate how they excelled in their Pandemic responses. In the second part of this paper, Bremmer's three categories (health, government effectiveness, economic policies) are divided and expanded upon as characteristics. In health, characteristics chosen included protecting healthcare workers, aggressive testing, contact tracing, and mask mandate. The government's effectiveness categories include transparency, centralization of decision-making, and international coordination with the World Health Organization (WHO). In

economics, the factors chosen were economic and social support legislations and policies and utilization of infrastructure. This expansion of the Bremmer category was done to make it easier to compare and contrast these broad factors among the places chosen for examination. For example, comparing South Korea and Canada's health performance is rugged, but comparing how both protected their healthcare workers is much simpler. Finally, the last part of this paper will suggest a set of clear and concise public policies in bullet points that could be implied based on this analysis to help states and regions suffering from containing COVID-19. The research data is from scholarly journals, global and local newspaper articles, and other governmental and international organizations' websites.

4. Section one: Historical and Policy overview of Best COVID Responses.

A. Taiwan.

Taiwan used three main strategies to combat COVID: Surveillance, quarantine, and increased scientific research¹⁶. Taiwan's case is fascinating because it is only 81 miles away from Mainland China and in many ways deeply connected with the Mainland. While many health experts expected Taiwan to be the second-highest number of cases per capita¹⁷, Taiwan proved that containing the unknown is possible with the right leadership, public corporation, and health assessments.

Taiwan used the data, knowledge, and infrastructural capabilities gained from their previous experience with Severe Acute Respiratory Syndrome SARS in 2003 to combat COVID-19. Following the SARS Pandemic, Taiwan empowered the Central Epidemic Center (CECC). CECC became the commander at the time of crisis on local, regional, and central levels. Before SARS, Taiwan had over three different health command centers at the

¹⁶ Cheng, Hao-Yuan et al. "Initial rapid and proactive response for the COVID-19 outbreak - Taiwan's experience." *Journal of the Formosan Medical Association = Taiwan yi zhi* vol. 119,4 (2020): 771-773. doi:10.1016/j.jfma.2020.03.007

¹⁷ "Modeling the Spread of 2019-NCoV." *John Hopkin Writing School for Engineering*, John Hopkin University & Medicine, 26 Jan. 2020, https://systems.jhu.edu/wp-content/uploads/2020/01/Gardner-JHU_nCoV-Modeling-Report_Jan-26.pdf.

time of a crisis (Biological Pathogen Disaster, Counter-Bioterrorism, Central Medical Emergency command centers). Having CECC unify all these command centers under one umbrella helped Taiwan have more rigid policies and actions. Also, SARS established a culture of mask-wearing, sanitization, social distancing, and quarantine, in addition to better hospital Pandemic control practices. Since SARS 2003, Taiwan has brought a team of infection control experts to ensure all necessary PPE are available. When the government announced the fight against COVID-19 in January, the medical care system immediately had a responsive strategic plan with the medical task force, triage, and isolation¹⁸.

The first documented response from Taiwan to COVID-19 was on January 2nd¹⁹, almost 20 days before it hit their land. On January 2nd, 2020, the Taiwanese Ministry of Health and Welfare (MOHW) gathered to discuss influenza spread during the new year travel season. The conversation switched immediately to Pneumonia, like a virus that was spreading in China. The meeting concluded with a plan to provide N95 masks, scan passengers, and issue a travel notice, especially for the Wuhan people. On January 7th, Taiwan officials tightened those restrictions and imposed them all around Taiwan. Taiwanese officials reactivated CECC on January 15th, which played a vital role in crafting the policies and commands that helped stop the spread²⁰. Within the next five weeks, "Taiwan rapidly produced and implemented a list of at least 124 action items to protect public health. The policies and actions go beyond border control because they recognized that that was not enough," said Jason Wang, Stanford Health Policy's associate professor²¹.

¹⁸ Lee, Wui-Chiang.* Taiwan's experience in pandemic control: Drawing the right lessons from SARS outbreak, *Journal of the Chinese Medical Association*: July 2020 - Volume 83 - Issue 7 - p 622-623 doi: 10.1097/JCMA.0000000000000350

¹⁹ Trotochaud, Marc. "Taiwan's COVID-19 Response." *Outbreak Observatory*, John Hopkin Bloomberg School of Public Health, 30 Apr. 2020, www.outbreakobservatory.org/outbreakthursday-1/4/30/2020/taiwans-covid-19-response.

²⁰ Trotochaud, Marc. "Taiwan's COVID-19 Response." *Outbreak Observatory*, John Hopkin Bloomberg School of Public Health, 30 Apr. 2020, www.outbreakobservatory.org/outbreakthursday-1/4/30/2020/taiwans-covid-19-response

²¹ Duff-Brown, Beth. "How Taiwan Used Big Data, Transparency and a Central Command to Protect Its People from Coronavirus." *Stanford Health Policy*, Stanford University, 3 Mar. 2020,

On January 21st, 2020, Taiwan President Tsai Ing-Wen authorized a contact tracing program that derives its data from scientific and credible resources²². The goal was to identify potential and current COVID cases and warn the community about them before it is too late. Taiwan's "electronic fence" application got announced on the same date with the sole goal of stopping the infection via tracking. Simultaneously, there was much controversy surrounding privacy when the contact tracing program started in Taiwan²³.

The Taiwanese model of contact tracing is a unique mixture of all the aforementioned approaches (the German, the Chinese, and the American approaches). Kluthe refers to the Taiwanese model as "participatory self-surveillance," where cell phone tracking is applied. However, people still participate by creating a network of information that flows from the people to the government and vice versa. The Taiwanese model emphasizes public engagement. For example, if an area in Taiwan has a shortage of masks, the public could report it to the authority, and the authority will solve the issue as soon as possible²⁴.

Taiwan emphasized "nudging" people to participate in the network by giving weight to their feedback. The Taiwanese government was extraordinarily responsive and inclusive, which nudged people to participate more. This method makes it easier to enforce contact tracing and gives citizens a sense of engagement and patriotism. The Taiwanese model also has an enforcement aspect where the app "geofence" people by tracking their cell phone and calling the police to leave their

www.healthpolicy.fsi.stanford.edu/news/how-taiwan-used-big-data-transparency-central-command-protect-its-people-coronavirus.

²² Li-Hua, Chung. "Virus Outbreak: Timeline of Preventive Efforts against COVID-19." *Taipei Times*, The Taipei Times, 14 Apr. 2020, www.taipeitimes.com/News/taiwan/archives/2020/04/14/2003734588.

²³ Lee, Yimou. "Taiwan's New 'Electronic Fence' for Quarantines Leads Wave of Virus Monitoring." *Reuters*, Reuters, 20 Mar. 2020, www.reuters.com/article/us-health-coronavirus-taiwan-surveillanc/taiwans-new-electronic-fence-for-quarantines-leads-wave-of-virus-monitoring-idUSKBN2170SK.

²⁴ Kluthe, Andreas. "If We Must Build a Surveillance State, Let's Do It Properly." *Bloomberg*, Bloomberg, 22 Apr. 2020, www.bloomberg.com/opinion/articles/2020-04-22/taiwan-offers-the-best-model-for-coronavirus-data-tracking.

range²⁵. Local chiefs, the lowest elected officials, had to call quarantined people twice a day to ensure that they are not deceiving the government by leaving a keeping their phones at home²⁶. Finally, Taiwan applied smart AI technology to manage data cost-effectively. The AI helped Taiwan utilizes its technological infrastructures such as cashless payments and network towers to achieve accuracy and efficiency.

To prevent the spread of a complete buying panic of sanitizers and face masks, the Taiwanese government took it into its hand to distribute medical-grade masks and tools. Furthermore, the government cooperated with private companies to ensure that employees check their temperature when entering business buildings. By the end of January, mask-wearing became a routine in Taiwan²⁷. While Taiwan did not have a full lockdown, they utilized data and used contact tracing effectively to reduce cases. Finally, Taiwan expanded its research capabilities between CECC and private health and pharmaceutical companies in Taiwan in January. As a result, Taiwan had 27 laboratories that could perform up to 2250 molecular diagnostic tests for COVID-19 a day as early as February²⁸. Overall, Taiwan proved that there is no need for a full economic shutdown to combat a pandemic. Despite all the challenges that faced Taiwan at the start of the pandemic due to its proximity to Wuhan, Taiwan successfully combated COVID-19 through contact tracing, data utilization, isolation when necessary, and increased laboratory and research capacity.

²⁵ Ghaffary, Shirin. "What the US Can Learn from Other Countries Using Phones to Track Covid-19." *Vox*, Vox Media, LLC, 22 Apr. 2020, www.vox.com/recode/2020/4/18/21224178/covid-19-tech-tracking-phones-china-singapore-taiwan-korea-google-apple-contact-tracing-digital.

²⁶ Sui, Cindy. "In Taiwan, the Coronavirus Pandemic Is Playing out Very Differently. What Does Life without a Lockdown Look like?" *NBC News*, NBC UNIVERSAL, 23 Apr. 2020, www.nbcnews.com/news/world/taiwanese-authorities-stay-vigilant-virus-crisis-eases-n1188781.

²⁷ Griffiths, James. "Taiwan's Coronavirus Response Is among the Best Globally." *CNN*, WarnerMedia, 5 Apr. 2020, www.cnn.com/2020/04/04/asia/taiwan-coronavirus-response-who-intl-hnk/index.html.

²⁸ Cheng, Hao-Yuan et al. "Initial rapid and proactive response for the COVID-19 outbreak - Taiwan's experience." *Journal of the Formosan Medical Association = Taiwan yi zhi* vol. 119,4 (2020): 771-773. doi:10.1016/j.jfma.2020.03.007

B. South Korea

Even before its first case on January 20th, South Korea already received a viral specimen from China to develop diagnostic tools²⁹. Like Taiwan, South Korea's rapid response was due to their experience with another formal coronavirus strain. Unlike Taiwan SARS 2002 outbreak, the outbreak in South Korea was much more recent and related to the Middle East Respiratory Syndrome MERS. The 2015 outbreak of MERS in South Korea included 186 cases and 38 fatalities³⁰.

South Korea learned many lessons from MERS 2015. First, it encouraged a culture of mask-wearing, hand washing, and social distancing. Second, it created The Korea Center for Disease Control and Prevention (KCDC) alongside four other governmental organizations. At the time of the MERS crisis, KCDC lacked the primary decision-making power needed to contain the MERS outbreak, mainly because each bureaucratic organization had some independence. However, things have slowly changed since then, and KCDC was empowered by the Ministry of Interior and became the primary epidemic control center. When COVID-19 initially appeared in South Korea, its leadership gave all the credibility and decision making to the scientific community of KCDC³¹. Finally, South Korea took COVID-19 seriously because, unlike SARS, which has a case fatality of 10%, MERS had a case fatality of 25%³². Later in 2015, MERS white paper was published to include all critical policies, lessons, and recommendations that South Korea must never

²⁹ Ariadne Labs. "Emerging COVID-19 Success Story: South Korea Learned the Lessons of MERS." *Our World in Data*, University of Oxford, 30 June 2020, ourworldindata.org/covid-exemplar-south-korea.

³⁰ Oh, Myoung-Don et al. "Middle East respiratory syndrome: what we learned from the 2015 outbreak in the Republic of Korea." *The Korean journal of internal medicine* vol. 33,2 (2018): 233-246. doi:10.3904/kjim.2018.031

³¹ Oh, Seung-Youn. "South Korea's Success Against COVID-19." *Regulatory Review*, University of Pennsylvania Law School, 14 May 2020, www.theregreview.org/2020/05/14/oh-south-korea-success-against-covid-19/www.theregreview.org/2020/05/14/oh-south-korea-success-against-covid-19/.

³² Fox, Justine. "What Prepares a Country for a Pandemic? An Epidemic Helps." *Bloomberg*, Bloomberg, 18 Mar. 2020, www.bloomberg.com/opinion/articles/2020-03-18/covid-19-response-better-in-countries-with-sars-mers-coronavirus.

forget. That white paper became the blueprint that guided South Korea's response to COVID-19 Pandemic³³.

South Korea tackled COVID-19 on three pongs: protecting healthcare workers, utilizing advanced technologies, and transparent communication ³⁴ . To start with, the government protected healthcare workers in a very comprehensive strategy. According to the Massachusetts Medical Society³⁵, South Korea protected healthcare workers with three key steps. First, the South Korean Ministry of Health implemented a regional reorganization of the health system. The reorganization includes a Risk Stratification system that categorizes patients based on their symptoms from asymptomatic to critical. Suppose a patient is not in severe or critical conditions. In that case, they get isolated in community treatment centers, which reduces the load on hospital staff and decreases the likelihood of spreading the virus in the emergency hospital.

South Korea's second action to protect health care workers is to improve Emergency hospitals' environments by providing screening clinics at hospital entrances, making masks mandatory, and screening hospital staff twice a day. Third, universal testing, contact tracing, and cohort isolation have been implemented in hospitals when deemed necessary.

The second pong to explain that South Korea's success is advanced medical and contact tracing technology. In medical technology, testing for COVID was available a week after the first case³⁶ due to the South Korean government cooperating with private companies to advance testing before COVID-19 even hit.

³³ Moon, M Jae. "Fighting COVID-19 with Agility, Transparency, and Participation: Wicked Policy Problems and New Governance Challenges." *Public administration review*, 10.1111/puar.13214. 20 May. 2020, doi:10.1111/puar.13214

³⁴ Ariadne Labs. "Emerging COVID-19 Success Story: South Korea Learned the Lessons of MERS." *Our World in Data*, University of Oxford, 30 June 2020, ourworldindata.org/covid-exemplar-south-korea.

³⁵ Kim, June-Ho, et al. "How South Korea Responded to the Covid-19 Outbreak in Daegu." *NEJM Catalyst Innovations in Care Delivery* , Massachusetts Medical Society, Aug. 2020, www.catalyst.nejm.org/doi/full/10.1056/CAT.20.0159.

³⁶ Thompson, Derek. "What's Behind South Korea's COVID-19 Exceptionalism?" *The Atlantic*, The Atlantic, 6 May 2020, www.theatlantic.com/ideas/archive/2020/05/whats-south-koreas-secret/611215/.

In contact tracing, South Korea used its technological infrastructure to trace individuals infected or suspected of being infected. The tracing also included surveillance camera footage, private mobile data, credit card transactions, and tracking bracelets for quarantine people³⁷. Like Taiwan, South Korea relied on aggressive testing, social distancing, and contact tracing instead of lockdown or immigration control.

The final prong to explain South Korea's success is clear and transparent communication. South Korea learned from the lesson in MERS. In MERS, South Korea did not communicate with the public about testing kits or hospital availability. When COVID-19 hit, South Korea realized that attempting to distort, hide, or change information will distrust the government. Another aspect of improved communication in the COVID-19 pandemic is better cooperation between local and central government than in MERS 2015. A positive example of Korea's intergovernmental coordination efforts is when the central government allowed the local government to confront the Shincheonji Church of Jesus in March 2020 about their worship practices. Shincheonji Church of Jesus Christ was responsible alone for 60% of cases in March. This high percentage is due to worshippers sitting on the floor next to each other while praying. The coordination between KCDC and the local government allowed the local government to stop this practice until further notice.

Overall, South Korea did great in combating COVID-19 due to them protecting their healthcare workers, utilizing advanced medical and tracing technology, and having transparent and clear communication among local government, central government, and the Korean people.

C. Australia.

³⁷ Park Y, Choe Y, Park O, et al. Contact Tracing during Coronavirus Disease Outbreak, South Korea, 2020. *Emerging Infectious Diseases*. 2020;26(10):2465-2468. doi:10.3201/eid2610.201315

The global Sustainable Development Report of 2020 gave Australia's A for their efforts in responding to COVID-19³⁸. Australia ranked third in the report for their effective response to COVID (South Korea First, New Zealand 9th, and Canada 24th). Australia's strategy in combating COVID-19 could be summarized in four main points: early international border closure, harmonization of decision making, utilizing advanced technology, protecting healthcare workers, and preserving the healthcare system's function.

Starting with early international border closure, The Australian response to the COVID timeline started two days before their first case. Australia implemented a ban on Wuhan's flights on January 24th, a day before their first initial case. A week later, Australia implemented the same ban on all flights coming from China³⁹. Due to Australia listening to all WHO guidelines in January and utilizing information to implement travel bans and restrictions, Australia managed to have almost no cases of COVID-19 in February 2020. After that, the number of cases started to increase again on March 5th, making Australia block Iran and Italy in early March and close their international border fully mid-March. Between March 15th to April 2nd, Australia's case curve was highest (around 400 a day)⁴⁰. The Australian government's response at the time was very crucial in flattening their curve.

Second, Australia's centralized decision making helped them make tough and better decisions. Australia recognized the need to have a centralized leadership for decision making during a crisis. Australia knew that a system of checks and balances, while great for democracy on a day-to-day basis, will not be useful during a rapidly changing pandemic. On March 13th, 2020, Australia announced the National Cabinet's creation,

³⁸ "Sustainable Development Report 2020 ." *Sustainable Development Report*, United Nations, 30 June 2020, www.sdgindex.org/reports/sustainable-development-report-2020/.

³⁹ Karp, Paul. " Timeline: How Australia Responded to the Coronavirus Outbreak." *The Guardian*, Guardian News & Media Limited , 3 Feb. 2020, www.theguardian.com/world/2020/feb/03/timeline-how-australia-responded-to-the-coronavirus-outbreak.

⁴⁰ Duckett, Stephen, and Anika Stobart. "Australia's COVID-19 Response: the Story so Far." *Grattan Institute*, Grattan Institute, 11 June 2020, www.grattan.edu.au/news/australias-covid-19-response-the-story-so-far/.

an intergovernmental decision-making forum that compromises the prime minister, state and territory premiers, and chief ministers⁴¹. Jennifer Menzies, a principal researcher at Griffith University, calls this form of leadership executive federalism and states three benefits ⁴². First, executive federalism improves response time by eliminating checks and balances and reduce risk by bringing medical experts to the conversation, such as the chief medical officer. Second, executive federalism improves Australia's COVID response clarity and coherence by reducing political topics and shifting the focus to the local communities. Finally, executive federalism provides a chance for smaller states to cast their voice as big ones, which Menzies refers to as dual democracy. As of May 2020, 9 out of 10 Australians said their government handled the pandemic well⁴³.

Third, Australia preserved the role of the healthcare sector and protected its workers during the crisis. A week after the first case, when no one knew what COVID-19 is or how it spread, the Australian government emphasized following the WHO guidelines. Australia threw all politics aside and focused on empowering scientists to take a leading role. As an example of that is John Howard, the former Prime Minister, quote to the current Prime Minister Mr. Morrison, "there are no ideological constraints at times like this." Mr. Morrison responded, "Today is not about ideologies. We checked those at the door."⁴⁴ The National Cabinet had scientists in every meeting. The scientists are encouraged to voice their thoughts and expert opinions during meetings.

⁴¹ Hitch, Georgia. "Key Moments from the Prime Minister's Latest Coronavirus Press Conference after National Cabinet Meeting." *ABC*, ABC News, 12 June 2020, www.abc.net.au/news/2020-06-12/five-key-moments-prime-minister-coronavirus-press-conference/12349584.

⁴² Menzies, Jennifer. "Explainer: What Is the National Cabinet and Is It Democratic?" *The Conversation*, The Conversation US, Inc, 30 Mar. 2020, www.theconversation.com/explainer-what-is-the-national-cabinet-and-is-it-democratic-135036.

⁴³ Kassam, Natasha. "COVIDpoll: Lowy Institute Polling on Australian Attitudes to the Coronavirus Pandemic." *Lowy Institute*, Lowy Institute, 14 May 2020, www.lowyinstitute.org/publications/covidpoll-lowy-institute-polling-australian-attitudes-coronavirus-pandemic.

⁴⁴ Flanagan, Richard. "Did the Coronavirus Kill Ideology in Australia?" *The NY Times*, The New York Times Company, 18 May 2020, www.nytimes.com/2020/05/18/opinion/coronavirus-australia.html?searchResultPosition=17.

Fourth, Australia applied strict lockdown measures similar to New Zealand. Australia started restricting lockdown measures from mid-March to mid-May⁴⁵. Following that, cases began to surge again, early-June in the State of Victoria. Australia had to implement another lockdown on Melbourne and Mitchell Shire. While Australia hoped they could ease up lockdown restrictions on the State of Victoria in a month, the lockdown took over 111 days⁴⁶. A lesson to be learned from Australia is that they prioritized health and saving people's lives over short term economy. Australia did not open the Melbourne back until there were zero cases in the city. Australia's strict and targeted lockdown measures helped them keep the pandemic under control.

Finally, Australia used advanced information, communication, and contact tracing technology to help reduce the spread of COVID. In communication and information technology, Australia Information Industry Association (AIIA) and the Federal government created the Australia Business continuity website. Business continuity offers various tools such as remote communications, workforce management, and video conferencing solution. Those tools are available to all business owners at any time and place for free⁴⁷. Australia made a recognizable effort in providing a technological infrastructure that helped ease the transformation of businesses to virtual.

In contact tracing, Australia announced COVIDSafe App on April 26th, which was optional. Two days later, 2.33 Million Australians downloaded the app⁴⁸. Australia did many things to reduce privacy concerns regarding its contact tracing app. First, they made the app function using Bluetooth detection

⁴⁵ Lupton, Deborah. "TIMELINE OF COVID-19 IN AUSTRALIA." *Deborah Lupton*, Medium, 12 Aug. 2020, medium.com/@deborahalupton/timeline-of-covid-19-in-australia-1f7df6ca5f23.

⁴⁶ Oser, Reese. "'None Of This Has Been Easy': Melbourne, Australia, Ends Its 111-Day Lockdown." *NPR*, NPR, 28 Oct. 2020, www.npr.org/2020/10/28/928793228/none-of-this-has-been-easy-melbourne-australia-ends-its-111-day-lockdown.

⁴⁷ "Australian Business Continuity." *Australian Business Continuity*, Australia Information Industry Association, www.australianbusinesscontinuity.com.au/aiia.

⁴⁸ Regan, Helen. "2 Million Australians Have Downloaded a Coronavirus Contact Tracing App." *CNN*, WarnerMedia, 28 Apr. 2020, www.cnn.com/2020/04/28/australia/covidsafe-coronavirus-tracing-app-australia-intl/index.html.

technology instead of geolocation. Second, the Australian government passed the Privacy Amendment (Public Health Contact Information) Act on March 14th to ensure contact tracing data protection. The COVIDSafe Privacy Policy is available on the official website in 63 different languages. Third, they made the attorney general explain all these laws transparently on TV. As of July 20th, 2020, over 21% of Australians have downloaded the app and voluntarily use it⁴⁹. Australia proves that a robust optional contact tracing system could be applied. A further in-depth look into the Australian contact tracing (and all the others) will be provided later in this article.

Overall, the Australian response to COVID was recognized globally for multiple reasons. They had leadership that listens to scientists and took fast and appropriate measures such as border control when deemed possible. Australia also centralized decision-making in the international cabinet's hand and applied executive federalism at the crisis time. Furthermore, Australia protected the healthcare sector and workers and empowered researchers and institutes. Finally, Australia utilized its technological infrastructure and applied a successful contact tracing program that protects Australian privacy.

D. New Zealand.

New Zealand proved that a lockdown combined with strict and appropriate measures are more than a sufficient response to stop COVID⁵⁰. The New Zealand example is fascinating because they successfully eradicated the virus in 114 days, even though they were ranked only thirty-fifth out of 195 countries in the 2019 Global Health Security Index with a low score of 54/100⁵¹. Unlike South Korea and Taiwan, New Zealand did not experience a Pandemic like MARS and SARS.

⁴⁹ Chatterjee, Abhishek. "Australia's COVIDSafe Has the Highest Adoption Rate among Official Contact Tracing Apps." *The Hindu*, THG PUBLISHING PVT LTD, 20 July 2020, www.thehindu.com/sci-tech/technology/australias-covidsafe-has-the-highest-adoption-rate-among-official-contact-tracing-apps/article32135390.ece.

⁵⁰ Baker, Michael G et al. "Successful Elimination of Covid-19 Transmission in New Zealand." *The New England journal of medicine* vol. 383,8 (2020): e56. doi:10.1056/NEJMc2025203

⁵¹ Mazey, S. and Richardson, J., Lesson-Drawing from New Zealand and Covid-19: The Need for Anticipatory Policy Making. *The Political Quarterly*, 91: 561-570. (2020). <https://doi.org/10.1111/1467-923X.12893>

Therefore, New Zealand was much less prepared than the US, which ranked 83.5/100 in the same Index. A direct comparison among New Zealand, South Korea, and Taiwan preparedness for the pandemic will be provided later in this research.

Backer, Kvalsvig, and Verrall argue that New Zealand's strategy in locking down provides a medium-term exit path at the cost of being more taxing economically and socially in the short-term than other alternatives (suppression and mitigation)⁵². New Zealand GDP contracted by 12.2% in the second quarter of 2020 alone⁵³. However, while being in lockdown, New Zealand invested in improving their digital infrastructure and reducing international trade barriers, which attracted FDI and made them top the Doing Business Report by the WTO in late 2020⁵⁴. New Zealand prioritized short-term health goals than economic ones but continued to plan and improve their long-term economic solutions. Besides this economic sacrifice, multiple reasons could explain New Zealand's excellence in their response to COVID: their geographic location, listening to specialists, transparent communication, utilizing advanced technology, strategic economic recovery, and the ability to adapt and learn from others.

First, New Zealand is an island in the southwestern Pacific Ocean. Their geographic location helped them control the flow of COVID much better than other countries or regions. In New Zealand, the first case of COVID was on February 28th, 2020⁵⁵, almost an entire month after the first cases started in many countries. Most cases of COVID New Zealand had been from overseas. New Zealand recorded no local transmission of COVID for three months from May to August. New Zealand has a relatively low population number (5 million) and a central

⁵² Baker, Michael G et al. "New Zealand's COVID-19 elimination strategy." *The Medical journal of Australia*, 10.5694/mja2.50735. 13 Aug. 2020, doi:10.5694/mja2.50735

⁵³ "Foreign Direct Investment (FDI) in New Zealand." *Nordea*, Nordea, 2020, www.nordeatrade.com/en/explore-new-market/new-zealand/investment.

⁵⁴ "Foreign Direct Investment (FDI) in New Zealand." *Nordea*, Nordea, 2020, www.nordeatrade.com/en/explore-new-market/new-zealand/investment.

⁵⁵ Smyth, Jamie. "New Zealand Reports First Locally Acquired Covid Case in Three Weeks." *Financial Times*, The Financial Times LTD, 17 Oct. 2020, www.ft.com/content/818836c6-41e4-434b-a1b8-b8c6d01fc9fe.

governance style without states⁵⁶. While New Zealand's geographic location benefits should not be ignored, it would be an oversight to assume it is the only reason New Zealand successfully combatted the virus.

Second, New Zealand rushed to listen to experts as soon as the pandemic hit. On January 30th, 2020, and three days after WHO declared COVID-19 a Pandemic. New Zealand activated a flu prevention plan and increased disease prevention measures. At the start of the pandemic, it is clear that New Zealand did not recognize the severity of COVID due to their lack of experience with MERS and SARS. However, New Zealand was lucky to be able to learn and adapt to experiences from other countries. New Zealand had the COVID hit them a month after it did most countries. New Zealand witnessed how terrifying the pandemic was in Italy, the US, and Greece. New Zealand was lucky because data was available to them for use. New Zealand was also smart for utilizing that data into something specific to them. New Zealand found it easier to establish an anticipatory model based on other countries' experiences and used that model to make better decisions⁵⁷.

Another factor that later enhanced the seriousness of the initial response in New Zealand is its reliance on scientists. Jacinda Ardern, New Zealand Prime Minister, showed solidarity and friendship to New Zealand Director-General of Health, Dr. Ashley Bloomfield. In an interview, Dr. Bloomfield mentioned that New Zealand pandemic scientists coordinated with the WHO for risk assessment and technical guidance, laboratory capacity, infection prevention and control, and risk communication⁵⁸. Listening to experts does not just include

⁵⁶ Blackmore, Mark, and Mario Maio. "Lessons We Can Learn from New Zealand's COVID-19 Strategy." *Development Asia*, Asian Development Bank, 15 July 2020, www.development.asia/policy-brief/lessons-we-can-learn-new-zealands-covid-19-strategy

⁵⁷ Perper, Rosie. "Australia and New Zealand Have Been Able to Keep Their Number of Coronavirus Cases Low Thanks to Early Lockdown Efforts. Experts Say It's 'Probably Too Late' for Other Countries to Learn from Them." *Business Insider*, Insider Inc, 17 Apr. 2020, www.businessinsider.com/experts-australia-new-zealand-examples-how-to-slow-coronavirus-2020-4.

⁵⁸ "New Zealand Takes Early and Hard Action to Tackle COVID-19." WHO, World Health Organization, 15 July 2020, www.who.int/westernpacific/news/feature-stories/detail/new-zealand-takes-early-and-hard-action-to-tackle-covid-19

health aspects. New Zealand also included political and economic experts in decision making by using multidimensional data to measure citizens' response to a policy or role. These data are collected using the Living Standard Dashboard established in 2018. The leading role New Zealand gave to scientists globally and nationally helped them make appropriate and rational decisions.

Third, on March 25rd, New Zealand announced a nationwide lockdown. According to Alexis Robert, the lockdown measures were "remarkable for its stringency and brevity, " indicating that the daily number of cases dropped below ten after establishing the lockdown⁵⁹. New Zealand established strong and strict lockdown measures while working hard with the scientific community to improve the health infrastructure and eliminate the virus. New Zealand lockdown lasted for months and did not go back to level one until July 7th⁶⁰. The government used the lockdown time wisely in preparing a capable infrastructure and advancing their medical and communication technology.

Fourth, the New Zealand leader Showed effective communication and strategic leadership during the COVID-19 pandemic⁶¹. Professor Suze Wilson Analyzed Jacinda Ardern's, Prime Minister of New Zealand, communication. Professor Wilson's communication analysis uses professors Jacqueline and Milton Mayfield's research on effective leadership communication. According to Wilson, Prime Minister Ardern shows all three characteristics of effective leadership: "direction-giving," "meaning-making," and "empathy." At first, she asked people to "stay home and save lives.", which made them feel like they have an impact on changing the outcome of this pandemic. Then, Ardern empathized with the citizen by sending online videos telling them not to give up. She

⁵⁹ Robert, Alexis. "Lessons from New Zealand's COVID-19 Outbreak Response." *The Lancet Public Health*, vol. 5, no. 11, 13 Oct. 2020, pp. 569–570., doi: [https://doi.org/10.1016/S2468-2667\(20\)30237-1](https://doi.org/10.1016/S2468-2667(20)30237-1).

⁶⁰ "The Latest: New Zealand to End Restrictions except in 1 City." *AP News*, The Associated Press, 19 Sept. 2020, www.apnews.com/article/virus-outbreak-australia-victoria-melbourne-scott-morrison-a38c6b2ae8f95619b63e8d5040562725.

⁶¹ Wilson, Suze. "Pandemic Leadership Lessons in New Zealand." *US News*, U.S. News & World Report L.P., 23 Oct. 2020, www.usnews.com/news/best-countries/articles/2020-10-23/pandemic-leadership-lessons-from-new-zealands-elections.

acknowledged how hard it is for everyone to stay home and gave additional time after her speeches to hear people's concerns and complaints. Finally, lockdown rules got implemented on everyone. David Clark, the health minister, was demoted and then resigned after breaking the rules for taking his family to the beach⁶². A fair system of legislation that applies to all citizen classes helped make the COVID response deliverance more effective and sincere. New Zealanders followed lockdown rules because of government transparency, leadership, and strict adherence to policies.

Fifth, New Zealand improved its testing capabilities, contact tracing, and communication technologies to combat COVID⁶³. In testing, New Zealand focused on applying aggressive testing measures and increased testing capabilities to 8,000 tests per day. In contact tracing, New Zealand established NZ COVID Tracer App. New Zealand followed the German approach and made the app download optional but made it obligatory for businesses to display their App QR code on doors so the public can scan it. The app opted out of using BlueTooth and used QR code technology instead of improving accuracy and making data collection more efficient. The app was developed with the privacy commissioner oversight and established clear guidelines that protect privacy. New Zealand provided channels, websites, and guidelines for businesses to switch online in the communication infrastructure. For example, the Ministry of Business and Innovation in New Zealand announced that VISA is working on a program, "Where You Shop Matters," which will help small businesses establish an online platform⁶⁴. Overall, New Zealand used the lockdown time to establish better testing, online communication, and more efficient contact tracing capabilities.

Sixth, according to Blackmore and Maio⁶⁵, New Zealand managed its economy in three significant waves: Fight the virus

⁶² "Coronavirus: New Zealand Minister Resigns after Lockdown Blunders." *BBC News*, BBC, 2 July 2020, www.bbc.com/news/world-asia-53259236.

⁶³ Paredes, Divina. "NZ Fast Becoming the Land of Digital Opportunities: IDC." *CIO*, IDG Communications, Inc., 10 Oct. 2020, www.cio.com/article/3508398/nz-fast-becoming-the-land-of-digital-opportunities-idc.html.

⁶⁴ "Where Yoy Shop Matter." *Visa*, VISA, 2020, www.visa.co.nz/run-your-business/small-business-tools/whereyoushopmatters.html

⁶⁵ Blackmore, Mark, and Mario Maio. "Lessons We Can Learn from New Zealand's COVID-19 Strategy." *Development Asia*, Asian Development

& cushion the blow, kickstart the recovery, and rebuild the economy. Fighting the virus and cushioning the blow was done by protecting local businesses from the virus's impact. New Zealand pushed economic packages of nearly eight billion dollars to focus on small businesses, as mentioned above. The recovery stage started when New Zealand lowered their level 4 alarm and encouraged businesses to open back while following protective measures. Finally, New Zealand rebuilt its economic position by establishing a trade recovery strategy. According to Blackmore, the strategy had three goals: support exporters, reestablish trade and renew trade relationships⁶⁶. New Zealand began reestablishing bilateral relationships with other countries to facilitate trade. New Zealand's clear and strategic economic recovery plan was why they topped Bloomberg's market crisis management index for political and economic stability in 2020⁶⁷. According to Bloomberg Media Survey, New Zealand ranked first in the best countries for investing. New Zealand ranked higher this year than in the past due to its political stability, fast economic recovery, and social resilience.

In conclusion, New Zealand's response to COVID excelled despite the odds due to its strategic communication and leadership, technology utilization, listening to experts, a well-managed economy, and a little bit of luck. New Zealand is proof that a lockdown does work if accompanied by the right policies and charismatic leadership. New Zealand applied an anticipatory model that helped them prepare for the worse, and by preparing for it, they avoided it.

E. Canada.

Canada established a comprehensive plan to combat COVID in late March. When Canada responded to COVID, they prioritized the following: researchers and scientists, medical

Bank, 15 July 2020, www.development.asia/policy-brief/lessons-we-can-learn-new-zealands-covid-19-strategy.

⁶⁶ Blackmore, Mark, and Mario Maio. "Lessons We Can Learn from New Zealand's COVID-19 Strategy." *Development Asia*, Asian Development Bank, 15 July 2020, www.development.asia/policy-brief/lessons-we-can-learn-new-zealands-covid-19-strategy

⁶⁷ Farrer, Martin. "New Zealand's Covid-19 Response the Best in the World, Say Global Business Leaders." *The Guardian*, Guardian News & Media Limited, 7 Oct. 2020, www.theguardian.com/world/2020/oct/08/new-zealands-covid-19-response-the-best-in-the-world-say-global-business-leaders.

workers, virtual care, economical long-term impact, indigenous community, digital infrastructure, and resource platforms⁶⁸.

To start with, Canada utilized the data they already had to make the best assessments when possible. To add some context, Canada had 44 deaths from SARS 2003 Pandemic. The public health system of Canada went through a major overhaul since then. "I would say the government of Canada responded in some concrete way to about 80% of the recommendations in the 2003 report", said Naylor, a former dean of medicine and former president of the University of Toronto⁶⁹. One of Canada's most valuable lessons from the SARS pandemic is to avoid hospitalization when necessary because Pandemics can overwhelm the hospital very rapidly.

Another lesson that Canada learned from SARS is utilizing data and relying on scientists to craft national policies. Multiple examples during COVID-19 could show how Canada relied on academia to make policy decisions. An example would be Dr. Kelley Lee's comparative analysis project that looks at international cross-border measures and improves how countries or regions coordinate their responses to the Pandemic with Canada. Another example of data utilization is Professor Caulfield's project to understand how Canadians are searching the internet and media for COVID information and how that could be improved. By analyzing this information, Professor Caulfield plans to create a blueprint to help the government push against false and misinformation. Dr. Kelly and Professor Caulfield are just two promising examples of how the Canadian government uses academic research to make the most strategic decisions possible⁷⁰. In summary, Canada learned two tough

⁶⁸ McMahon, Meghan et al. "Informing Canada's Health System Response to COVID-19: Priorities for Health Services and Policy Research." *Healthcare policy = Politiques de sante* vol. 16,1 (2020): 112-124. doi:10.12927/hcpol.2020.26249

⁶⁹ "COVID-19 Pandemic Guidance for the Health Care Sector." *Government of Canada*, Canada, www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/covid-19-pandemic-guidance-health-care-sector.html.

⁷⁰ "Northern Light: How Canadian Research Offers Hope in the Fight against COVID-19 ." *Canadian Institute of Health Research*, 18 Sept. 2020, cihr-irsc.gc.ca/e/51964.html.

lessons from SARS: protect HCWs and rely on scientific experts' analysis when making decisions.

It is also worth mentioning that Canada gave priority to the Scientific Community during the pandemic. The Canadian Institutes of Health Research (CIHR) and the WHO guidelines played a vital role in combating COVID. On February 10th, CIHR announced its first research response funding opportunity. CIHR received \$54.4 million following the announcement. The government increased that with an additional \$115 million fund a month later.

Another example of Canada's endorsement of scientists is Dr. Bonnie Henry, a physician, and the provincial health officer of British Columbia. Henry became the health spokesperson due to her empathy and soft language. Dr. Henry became so loved in Canada that Vancouver footwear designer John Fluevog made a shoe with her name. Fluevog said he is "honored" to see Dr. Henry wear his shoe⁷¹. The love and support scientists and researchers received in Canada is unprecedented and could help explain why many people decided to follow their words.

Another priority to Canada during the pandemic was healthcare labor. Canada developed pandemic guidance for the health care sector on critical care settings, clinical management, and COVID health sector preparedness. Furthermore, Canada provided a public health ethical framework that aims to help healthcare labor mental health. The government assigned health strategists in big cities like Toronto to ensure PPE availability. In July, Prime Minister Justin Trudeau said that the country is reaching a self-sufficiency level in medical equipment⁷².

Third, Canada prioritized virtual care to reduce the load on healthcare workers. COVID proved the importance of having

⁷¹ Harris, Aleesha. "John Fluevog Says Seeing Dr. Bonnie Henry Wearing His Shoes Is a 'Privilege'." *Vancouver Sun*, Postmedia Network Inc, 30 Apr. 2020, www.vancouversun.com/life/fashion-beauty/john-fluevog-says-seeing-dr-bonnie-henry-wearing-his-shoes-is-a-privilege.com

⁷² Farr, Christina. "How Canada Is Fighting Covid-19: Ramping up PPE Production, Travel Ban from the U.S. and Bonnie Henry." *CNBC*, CNBC LLC, 13 July 2020, www.cnn.com/2020/07/13/how-canada-is-fighting-covid-19-ppe-travel-ban-bonnie-henry.html.

a virtual system for diagnoses. The Canadian government provided a website for physicians to encourage them to learn and switch to a virtual care system⁷³. The system of virtual care still has its flaws, especially regarding the public adoption rate. Some of the barriers to a virtual care system in Canada include cost, privacy, and medical tools incorporation. However, the Canadian Medical Association (CMA) is very hopeful. Since Canada possesses the technology and the capability to achieve virtual medical services, some of the recommendations that CMA suggested to increase virtual meetings include developing national standards for patient information access and simplifying the physician's registration process to a virtual care license⁷⁴. During COVID-19, About 47% of Canadians used Virtual care COVID-19, and about 91% reported satisfactory results⁷⁵.

Fourth, Canada prioritized looking forward to the long-term consequences of the pandemic. Canada made a COVID-19 Economic Response Plan that could help individuals and businesses impacted by COVID⁷⁶. It also helps that healthcare in Canada in a single-payer system, which means that the government will pay health insurance for the unemployed. Canadians who were unemployed or impacted by COVID were given \$2000 a month for four months to get back on their feet. Support tools for the public were available for the public, from mental health to spiritual healing. Finally, Canada included the last part of their economic plan for businesses. Academic research of COVID's impact on each business sector impacted the fiscal and monetary support ratios. Another part of the economic plan focused solely on women and indigenous businesses to decrease the disparity between classes. As a result of Canada's comprehensive economic package, Canada's GDP

⁷³ "Virtual Care Resources During COVID-19 ." *Canada Health Infoway*, www.infoway-inforoute.ca/en/resource-centre/virtual-care.

⁷⁴ "MA-Led Task Force Releases Roadmap for Expanding Virtual Medical Services ." *Canadian Medical Association* , 11 Feb. 2020, www.cma.ca/news/demand-here-technology-exists-cma-led-task-force-releases-roadmap-expanding-virtual-medical.

⁷⁵ Zafar, Amina. "Many Canadians Used Virtual Medical Care during COVID-19, Poll Suggests." *CBC*, CBC/Radio-Canada, 8 June 2020, www.cbc.ca/news/health/virtual-care-cma-survey-1.5603713.

⁷⁶ "Canada's COVID-19 Economic Response Plan." *Government of Canada*, Canada, 2020, www.canada.ca/en/departement-finance/economic-response-plan.html.

grew at an annualized rate of 48% in the third quarter of 2020⁷⁷. In comparison, the US GDP was lower by around 16% in the same third quarter⁷⁸.

Fifth, Canada gave a special priority to the indigenous community. Indigenous communities like Inuit and Métis in Canada did exceptionally well in controlling the pandemic, with a 66% less fertility and 30% higher recovery rate⁷⁹. The numbers were not a coincidence, but a set of public health policies combined with excellent cooperation between the indigenous community and the Public Health Agency of Canada PHAC. The coordination between PHAC the Indigenous community while preserving the indigenous tribe's independence and freedom was a vital component of Canadian success. The 2007 United Nations Declaration on the Rights of Indigenous Peoples gave the community in Turtle Island the "self-determination overall activities related to their lives and well-being."⁸⁰ The success of the fight against COVID could not have been achieved if it was not for indigenous people corporation. When COVID hit, the Indigenous communities' leaders immediately secured funding for all the necessary medical and protective. Simultaneously, the PHAC made a comprehensive medical and economic plan to support those communities. This example is exceptional because Canada continued to protect indigenous communities' independence despite the pandemic. In return, indigenous headmen showed leadership, resilience, and commitment to help their communities' health and well-being⁸¹.

⁷⁷ Ghosh, Indradip. "Canadian Economic Recovery to Be Weaker as COVID-19 Cases Resurge, Reuters Poll Shows." *Reuters*, Reuters, 22 Oct. 2020, www.reuters.com/article/us-canada-economy-poll-idCAKBN2771UZ.

⁷⁸ "Gross Domestic Product, Third Quarter 2020 (Advance Estimate)." *Bureau of Economic Analysis*, The United States Government, 29 Oct. 2020, www.bea.gov/news/2020/gross-domestic-product-third-quarter-2020-advance-estimate.

⁷⁹ Richardson, Lisa, and Allison Crawford. "How Indigenous Communities in Canada Organized an Exemplary Public Health Response to COVID." *Scientific American*, Springer Nature America, 27 Oct. 2020, www.scientificamerican.com/article/how-indigenous-communities-in-canada-organized-an-exemplary-public-health-response-to-covid/.

⁸⁰ "United Nations Declaration on the Rights of Indigenous Peoples." *UN*, United Nations, 13 Sept. 2007, www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html.

⁸¹ Richardson, Lisa, and Allison Crawford "How Indigenous Communities in Canada Organized an Exemplary Public Health Response to COVID."

Sixth, Canada utilized and advanced its communication and tracing technology during COVID. Canada COVID alert app was launched on July 31st ⁸². Canada followed the German approach in contact tracing, which means it depends on using the app. One of the challenges Canada wanted to address before launching the app is privacy. The app included a privacy protection feature using Bluetooth without having to identify the person using the app. Another technological challenge Canada had to deal with during COVID is the disparity of internet speed between city and rural areas. The Canadian internet provider Bell Tech announced that they would rule out a plan to increase internet speed and accessibility in rural areas. The plan should reach 80,000 homes by the end of the year⁸³.

Finally, Canada has been giving priority to providing knowledge and resource platforms for those that need it. An example would be the ethical and work guidelines given to healthcare workers to an economic plan to help individuals and businesses during the pandemic. Another example is Coronavirus disease (COVID-19) Guidance documents, which provide ethical and technical recommendations to all audience types (community, youth, faith community leaders, death care services... etc.). The documents are also easily accessible online. The goal of having a knowledge platform is to increase awareness and help people make the right choices regarding their health and businesses.

To conclude, Canada's response to COVID can teach many lessons. Canada gave priority to physicians and scientists, which helped them make rational decisions when they needed it most. Furthermore, Canada protected health care workers by reducing the number of patients in hospitals, encouraging

Scientific American, Springer Nature America, 27 Oct. 2020, www.scientificamerican.com/article/how-indigenous-communities-in-canada-organized-an-exemplary-public-health-response-to-covid/.

⁸² "Download COVID Alert Today." *Government of Canada*, Canada, www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/covid-alert.html#a5.5.

⁸³ "Bell Expanding Rural Broadband to More Locations with Faster Speeds." *Canada NewsWire*, CNW Group, 11 Sept. 2020, www.scientificamerican.com/article/how-indigenous-communities-in-canada-organized-an-exemplary-public-health-response-to-covid/.

virtual assessments, and providing physicians' mental support. Moreover, Canada made a clear, comprehensive economic plan to support individuals and businesses in the long run. Also, Canada utilized their technology and used a knowledge-based platform to make accessing information easier for the public. Finally, Canada protected indigenous communities through extensive coordination without making them lose their independence or leadership. Canada is a shining example of an adaptive COVID response that kept getting better through trials and errors.

5. Section two: Comparative Analysis of the Best COVID Responses.

When Eurasia group experts made their assessment, they used three categories (health, government effectiveness, and economic policies) to decide what regions and countries did best in responding to COVID. This section of the paper expands those categories into something more specific. The health category was expanded to include protecting healthcare workers, aggressive testing, contact tracing, and mask mandate. The government effectiveness category was divided into transparency, centralization of decision-making, and international coordination with the World Health Organization (WHO). Finally, economic factors included economic and social support legislations and policies and utilization of digital infrastructure. The goal of the expansion is to make it easier to compare and contrast the places examined.

A. Health Category: Contact tracing.

One common theme that can be repeatedly seen in the analysis here center around contact tracing technology. According to the Pennsylvania department of health, contact tracing is the process of identifying, notifying, and monitoring people who came in contact with an individual who tested positive for COVID⁸⁴. There are multiple challenges associated with applying a robust contact tracing system in a region or country. The first challenge relates to technology accessibility and feasibility. According to the CDC, the chance of severe illness

⁸⁴ "Contact Tracing." *PA Health*, Pennsylvania Department of Health, www.health.pa.gov/topics/disease/coronavirus/Pages/Contact-Tracing.aspx.

increases when a person gets older⁸⁵. In other words, someone in their 50s is at higher risk than someone in their 40s. Contact tracing depends on cellphone technology, and the group that gets impacted by COVID the most might not have access to this technology due to their age.

For example, in the UK, 61% of people over the age of 65 do not have access to smartphones⁸⁶. A challenge would be delivering a robust contact tracing to those that need it the most. Another challenge is how to increase people's participation and reduce privacy concerns. In a recent Pew Research Center Survey, 40% of Americans showed a sign of wariness when told they would speak to a public official by phone or text about the COVID outbreak. Even more impressive, while 22-27% of Americans were willing to share the location they recently visited and the people they met, almost 50% were against location sharing technology from a cellphone⁸⁷. These issues bring up how governments managed to acquire public trust and dealt with contact tracing challenges. Here is an in-depth look:

Canada: Assessing how functional and robust the Canada contact tracing program is challenging at the time of this research for multiple reasons. First, the App (COVID Alert) was launched on July 31st, which is very recent compared to the timing of action taken by the governments of the other places examined. Second, the app is entirely voluntary, making it harder to assess its success soon after launch. Despite all these assessment' setbacks, it is clear that Canada recognized the technology and privacy challenges when they launched their contact tracing app, which made the process of adoption easier.

⁸⁵ "Coronavirus Disease 2019 (COVID-19): Older Adults." CDC, U.S. Department of Health & Human Services, 2020, www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html.

⁸⁶ Gardner, Allison. "Contact-Tracing Apps: There's No Evidence They're Helping Stop COVID-19." *The Conversation*, The Conversation US, Inc, 21 Oct. 2020, www.theconversation.com/contact-tracing-apps-theres-no-evidence-theyre-helping-stop-covid-19-148397.

⁸⁷ McClain, Colleen, and Lee Rainie. "The Challenges of Contact Tracing as U.S. Battles COVID-19." *Pew Research Center*, Pew Research Center, 30 Oct. 2020, www.pewresearch.org/internet/2020/10/30/the-challenges-of-contact-tracing-as-u-s-battles-covid-19/.

According to the app website, the number of downloads as of October 29th is almost 5 million⁸⁸.

A joint statement was issued on May 7th by Federal, Provincial, and Territorial Privacy Commissioners in Canada to solve privacy concerns. The statement included 14 principles that the app must function on to be approved by the privacy commissioner. Some of those principles include consent and trust by making the app voluntarily, and legal authority by having a clear legal base on what information is shared. Other principles included being proportional to the incident, ensuring the de-identification of data when possible, destroying the data when the crisis ends, and creating a safeguard and accountability system against online hackers⁸⁹. There might be a need for additional time to assess these policies' success. However, as of July 31st, 2020 (the date the app launched), 56% of the Canadian population said they are somewhat likely or very likely will download the app. Of the 44% that said that they would not download the app, almost 65% thought it was an invasion of privacy, and 45% said they did not want the government to access their location⁹⁰.

Canada is also having issues delivering contact tracing to those who need it the most. In a StatsCan survey, about 30% of seniors said they would not use the app; from that 30%, about 43% said they would not join the contact tracing program because they have no access to mobile data⁹¹. A solution that Canada could do to solve this issue is to get some help from Singapore. This solution is not absurd since the Western province of Alberta did adapt the Singaporean App Trace Together to stop COVID in May, two months before COVID Alert

⁸⁸ "Download COVID Alert Today." *Government of Canada*, Canada, www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/covid-alert.html#a5.5.

⁸⁹ "Joint Statement by Federal, Provincial and Territorial Privacy Commissioners." *Office of Privacy Commissioner of Canada*, 7 May 2020, www.priv.gc.ca/en/opc-news/speeches/2020/s-d_20200507/.

⁹⁰ Aitken, Nicole, et al. "Willingness of Canadians to Use a Contact Tracing Application." *StatCan*, Statistics Canada, 31 July 2020, www.150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00059-eng.htm

⁹¹ Aitken, Nicole, et al. "Willingness of Canadians to Use a Contact Tracing Application." *StatCan*, Statistics Canada, 31 July 2020, www.150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00059-eng.htm

launched in Canada. Singapore provided an attractive technological solution to reach their senior citizens: The TraceTogether Tokens. Those Tokens are portable, use Bluetooth technology, and do not require any installation⁹². Canada can adapt the Token system for its elderly to ensure that they are covered and increase the adoption rate. Overall, Canada is still in the process of trial and error in applying its contact tracing technology. Canada made privacy an integral part of their app design and are still working to solve technology delivery and optimization for the elderly. It is still left to see if that could result in higher adoption rates in the future.

Australia: Australia has done a better job in contact tracing than Canada but could still learn a few lessons from the South Korean and Taiwanese contact tracing program. The Australian contact tracing system did well in adoption rates and privacy protection but could improve technical errors and efficiency.

Unlike Canada, which took till August to adopt a contact tracing system, Australia prioritized having one as early as April 14th. Australia has done so by adopting the Singaporean App Tracetogether. The early adoption of a contact tracing app gave Australia more time to increase downloads and fix many technical errors. As of June 1st, COVIDsafe is setting near the top 10 in Apple and Google stores with over 6 million downloads⁹³. These numbers mean that about a fourth of the Australian population downloaded the app. Australia used many techniques and strategies to increase the number of downloads on the COVIDsafe App.

First, they ensured privacy. The app design uses Bluetooth technology to record "cryptographically-encoded handshake" between phones. The records of the handshake are kept for 21 days. The parliament passed the Privacy

⁹² Guy, Jack. "No Smartphone, No Problem: Singapore Rolls out Coronavirus Contact-Tracing Device for Seniors." *CTV News*, Bell Media, 29 June 2020, www.ctvnews.ca/health/coronavirus/no-smartphone-no-problem-singapore-rolls-out-coronavirus-contact-tracing-device-for-seniors-1.5003916.

⁹³ "Asia Today: 6 Million Australians Download Virus Tracing App." *ABC News*, 24 May 2020, www.abcnews.go.com/Health/wireStory/asia-today-australians-download-virus-tracing-app-70854196

Amendment (Public Health Contact Information) Act and the app to ensure privacy protection. A privacy commissioner was assigned to evaluate and assess privacy risks⁹⁴.

Second, the Australian government ramped up COVIDsafe downloads by participating voluntarily and nudging its citizens to do so through motivators and advertising. The government launched a series of radio, TV, social media, and outdoor advertisements to promote the app and ensure privacy⁹⁵. Finally, the app has easy interference and does not require constant scanning for QR codes like the App in New Zealand, making it more user-friendly.

COVIDsafe did come with its fair share of issues, mostly technical. The app consumed much battery when it launched at first. Another issue is that health expert wants the App on IOS devices to work on the background, but that would require Apple to give a unique cryptographic notification mechanism to the COVIDsafe app, which they refuse to do. The controversy between Apple and Australian health experts is a classic example of contact tracing wanting to do more while privacy experts are refusing to do so⁹⁶. Even more vital, another issue is app efficiency. While using Bluetooth technology can be better for user interference and privacy, the QR system adopted by New Zealand is simpler to track, faster, and more accurate. While Bluetooth does offer better tracking on people individually with a less mandatory user interface, QR is more collective and relies on a consistent user interface. Data utilization and analysis in QR technology takes less time than Bluetooth because there is no need to predict who made an “electronic handshake.” Instead, QR code relies on collective users reporting where they were when entering a building⁹⁷.

⁹⁴ “ COVIDSafe App .” *Australian Government Department of Health, Commonwealth of Australia* , www.health.gov.au/resources/apps-and-tools/covidsafe-app#privacy.

⁹⁵ Kelly, Vienna. “Government Ramps up Advertising Push for COVID Safe App.” *Mumbrella*, MumbrellaPro, 6 May 2020, www.mumbrella.com.au/revenue-for-april-drops-29-8-across-nines-broadcasting-division-627090.

⁹⁶ Taylor, Josh. “How Did the Covidsafe App Go from Being Vital to Almost Irrelevant?” *The Guardian*, Guardian News & Media Limited, 23 June 2020, www.theguardian.com/world/2020/may/24/how-did-the-covidsafe-app-go-from-being-vital-to-almost-irrelevant.

⁹⁷ Taylor, Josh. “QR Codes: How an Old Technology Could Help Contact Tracers Keep the Pandemic in Check.” *The Guardian*, Guardian News &

Overall, Australia is highly advised to consider using a QR technology system like New Zealand and make Bluetooth a supplementary technology. Despite the problematic user interference, the QR form of contact tracing has improved accuracy, efficiency, and speed.

New Zealand: New Zealand contact tracing is nothing but a success. The app has a high adoption rate (50%)⁹⁸ and uses QR technology is more accurate than the Australian and Canadian apps Bluetooth technology⁹⁹. As of September 2nd, 2.1 million Australians downloaded NZ COVID Tracer. The app launched on May 20th, and it uses QR technology to check if a location might have an individual with COVID. Multiple reasons can explain the high adoption rate of NZ COVID. The first one is related to the demographic. The majority of New Zealand people over 18 have access to smartphones and the internet and are politically engaged¹⁰⁰.

Another reason could be how New Zealand forced businesses to have the QR codes on their doors, making it easier for users to scan the codes at all times. Another important reason that could explain the high adoption rate is the privacy and security of the COVID tracker. The government promised that it would delete all information within 60 days. Deleting the data is available for the user if they want to remove it before the 60 days pass. The app was developed by Rush Digital and relied on Amazon Web Services (AWS) platform using a large-scale encryption framework. Privacy Impact assessments made by

Media Limited, 30 Oct. 2020, www.theguardian.com/world/2020/oct/31/qr-codes-how-an-old-technology-could-help-contact-tracers-keep-the-pandemic-in-check.

⁹⁸ Blake-Persen, Nita. "2.1 Million Download Covid Tracer App, but Who Is Signing in?" *RNZ*, Radio New Zealand, 2 Sept. 2020, www.rnz.co.nz/national/programmes/checkpoint/audio/2018762292/2-point-1-million-download-covid-tracer-app-but-who-is-signing-in.

⁹⁹ Retchel, Micheal. "Contact Tracing With Your Phone: It's Easier but There Are Tradeoffs." *The NY Times*, The New York Times Company, 3 June 2020, www.nytimes.com/2020/06/03/health/coronavirus-contact-tracing-apps.html.

¹⁰⁰ "Digital Inclusion and Wellbeing in New Zealand." *Digital Government NZ*, New Zealand Government, 2020, www.digital.govt.nz/dmsdocument/161~digital-inclusion-and-wellbeing-in-new-zealand/html#executive-summary.

the privacy commissioner could be found on the app website and are updated regularly each month¹⁰¹.

The most significant criticism New Zealand's contact tracing system receive is that the user needs to actively enter the app in order for it to be effective¹⁰². NZ COVID app requires its user to scan the QR codes of the places they visit continually. "the more we can, the safer we will be" is the NZ COVID app slogan¹⁰³. Some might suggest having Bluetooth replace QR technology, but that could significantly reduce contact tracing accuracy and efficiency. Another suggested solution might be to give citizens the option between Bluetooth or QR, but a concern is that most people might choose Bluetooth simply because it is uncomplicated. One final solution would be to make QR the primary contact tracing and Bluetooth method as a supplementary technology if there is a need for more information, but that might consume more mobile devices hardware and battery.

South Korea: South Korea created a robust contact tracing system that will be studied as a model for many more generations to come. South Korea adopted an aggressive information technology-based contact tracing program. According to Professor Backer, South Korea utilized the smart city infrastructure to trace people in three different methods. The first method is tracing through debit and credit card transactions. This tracing method is exceptionally efficient in South Korea since they have the most cashless transaction in the world. Second, South Korea used phone location, 4g, and 5g networks to ensure geolocation accuracy. South Korea furthered that accuracy by using smart AI technology in addition to an automated call monitoring system.

¹⁰¹ "NZ COVID Tracer App." *NZ Ministry of Health*, New Zealand Government, 2020, www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-and-tools/nz-covid-tracer-app.

¹⁰² Blake-Persen, Nita. "2.1 Million Download Covid Tracer App, but Who Is Signing in?" *RNZ*, Radio New Zealand, 2 Sept. 2020, www.rnz.co.nz/national/programmes/checkpoint/audio/2018762292/2-point-1-million-download-covid-tracer-app-but-who-is-signing-in.

¹⁰³ "NZ COVID Tracer App." *NZ Ministry of Health*, New Zealand Government, 2020, www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-and-tools/nz-covid-tracer-app.

Finally, South Korea made accumulated data available in public through websites, which increases transparency and makes those data more useful and helpful for academic scholars and the public¹⁰⁴. The data availability online helped improve accuracy and public trust, a lesson that South Korea learned the hard way after MERS 2015 Pandemic. South Korea increased data transparency through the Personal Information Protection Act (PIPA) that gave citizens data ownership rights, including the right to be forgotten. In combination with the General Data Protection Regulation (GDPR), PIPA gave enhanced health data protection¹⁰⁵. Overall, the South Korean contact tracing model succeeded due to its accuracy, efficiency, and transparency. It was accurate and efficient because it utilized South Korea's infrastructural technology, like cashless transactions and smartphone possession. It was also transparent because it was publicly available while protecting individual rights through the proper regulations.

Taiwan: Multiple politicians and tech experts agree that the Taiwan model of contact tracing is the best globally, with 88% accuracy for secondary contact¹⁰⁶. The Taiwanese model of contact tracing succeeded because of efficiency, transparency, and public engagement.

The Taiwanese model was efficient and accurate for multiple reasons. It used an integrated data management system. The Taiwan Centers for Disease Control developed a TRACE platform in 2017 to respond to future pandemics. Taiwan spent nearly \$7.5 million on TRACE funding. The data management system had an integration of both travel and health data. Taiwan used the experience they had with SARS

¹⁰⁴ Backer, Larry. "Automated Law and COVID-19: Data Driven Measures With National Characteristics In China and Israel and the Future of the Law-Governance Complex ." *Law at the End of the Day*, 24 Mar. 2020, www.lcbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html.

¹⁰⁵ Jagannathan , Vijay. "Learning From Seoul to Control COVID-19: Transparency, Accountability, Solidarity." *TheCityFix*, World Resources Institute, 18 May 2020, www.thecityfix.com/blog/learning-seoul-control-covid-19-transparency-accountability-solidarity-vijay-jagannathan/.

¹⁰⁶ Jian, Shu-Wan, et al. "Contact Tracing with Digital Assistance in Taiwan's COVID-19 Outbreak Response." *International Journal of Infectious Diseases*, vol. 101, 30 Sept. 2020, pp. 348–352., www.sciencedirect.com/science/article/pii/S1201971220322001.

2003 as a base for their model. The data-driven system used an AI similar to South Korea that uses phone geolocation, Bluetooth, and other digital data to predict an outbreak. TRACE AI offers a more efficient way to manage data-driven systems, reduce human workload, and improve speed and accuracy. Canada, New Zealand, and Australia could improve their contact tracing system and reduce its cost in the long run by having a management tool like TRACE¹⁰⁷. Taiwan proved that using artificial intelligence in data management could help leaders make the right decision fast and effectively.

The Taiwanese model of data collection was also transparent and engaging. As previously mentioned in this paper, the Taiwanese model is unique because it gave citizens an active role in decision making, which increased transparency and trust¹⁰⁸. For example, when masks were running low in Taiwan in the first month of the pandemic, Taiwan's digital minister, Audrey Tang, gave a detailed plan based on the data collected on masks' real-time supplies¹⁰⁹. The TRACE system was an integral part of resource allocation management. Another example of public engagement is V-Taiwan's website, where people brainstorm ideas and collaborate with the government to fight the virus. In this instance, Taiwan offers an effective solution to increase participation in optional contact tracing models like Canada, New Zealand, and Germany. The frequent communication between the public and the Taiwanese government helped establish trust, patriotism, and practical solutions.

B. Protecting Healthcare Workers.

Another common theme that selected countries and regions shared is that they made protecting healthcare workers (HCWs) a priority. HCWs are at the frontline when pandemics

¹⁰⁷ Wang CJ, Ng CY, Brook RH. Response to COVID-19 in Taiwan: Big Data Analytics, New Technology, and Proactive Testing. *JAMA*. 2020;323(14):1341–1342. doi:10.1001/jama.2020.3151

¹⁰⁸ Duff-Brown, Beth. "How Taiwan Used Big Data, Transparency and a Central Command to Protect Its People from Coronavirus." *Stanford Health Policy*, Stanford University, 3 Mar. 2020, www.healthpolicy.fsi.stanford.edu/news/how-taiwan-used-big-data-transparency-central-command-protect-its-people-coronavirus.

hits. The physical and psychological state of HCWs could strongly impact their performance during a stressful pandemic. Here is an in-depth look at how each chosen government protected their HCWs.

South Korea: To begin, South Korea has one of the lowest COVID-19 infection rates among HCWs globally¹¹⁰. Ariadne Labs conducted research led by Doctor June-Ho Kim and a team of volunteers from Harvard University to analyze how South Korea achieved low infection rates in hospitals during COVID¹¹¹. After thorough interviews and protocols, the research found five elements that South Korea used to protect HCWs. The first element is centralized triaging, defined as the effective mobilization of finite resources across the region. By mobilizing resources such as beds and medical devices, the government can lower the pressure on HCWs and provide the appropriate care level based on the condition. South Korea did not just mobilize the resources but also increased healthcare workers' capacity inside hospitals and care centers.

The second element is the prevention of cross-contamination in hospitals to preserve the healthcare system's integrity and credibility. South Korea emphasized this element after a failed experience with the MERS 2015. During the MERS outbreak, the government did not report hospital cross-contamination stories because they worried it might hurt their functionality and credibility. With COVID-19, South Korea has emphasized transparency and risk-communication because they realized that honesty is the best method to gain public trust and confidence. South Korea made all hospital data available online and increased transparent communication during COVID-19. The third element South Korea applied to protect HCWs is regular screening, testing, and applying self-quarantine when necessary. The fourth element is limiting community spread by using aggressive testing, contact tracing, and constant

¹¹⁰ Gray, Sandra. "How South Korea Protects Health Care Workers from COVID-19." *Medical Express*, Science X Network, 14 July 2020, www.medicalxpress.com/news/2020-07-south-korea-health-workers-covid.html.

¹¹¹ "Ariadne Labs Releases Report Detailing How South Korea Is Protecting Health Care Workers During COVID-19." *Ariadne Labs*, Harvard T. H. Chan School of Public Health, 12 May 2020, www.ariadnelabs.org/resources/articles/news/ariadne-labs-releases-report-detailing-how-south-korea-is-protecting-health-care-workers-during-covid-19/.

monitoring. Even more impressive, South Korea's limited community spread by providing dorms and residential facilities for patients who need less care¹¹². Finally, South Korea provided a full guideline for HCWs on prevention and sanitization and other resources such as mental health welfare centers. In conclusion, South Korea learned from the MERS outbreak and applied a strategic plan to protect its HCWs. The plan included resource mobilization, cross-contamination prevention, regular screening, aggressive testing, contact tracing, and regulatory guidance.

Taiwan: Like South Korea, the government of Taiwan was one of the few that reported almost zero cross-contamination cases among healthcare workers¹¹³. According to Ting-Wan Tan and others¹¹⁴, Taiwan achieved effective intra-hospital prevention by following six preventative principles. The first principle is establishing appropriate control of personal protective equipment (PPE). Every hospital is given a "stock card" to fill to prevent a shortage of PPE. The second principle is updated guidance and education for all HCWs by providing free education to educate HCWs on crucial steps like wearing PPE, hand hygiene, etc. The training program extends even beyond HCWs to hospital cleaning staff and others.

Third, applying strict, standardized cleaning measures to ensure the virus will not spread. An example would be using detergent solution 5000 ppm NaHCO₃ with disposable clothes for disinfection. The fourth principle is using improved cameras and digital technology to observe patients in an isolated room. Having a virtual monitoring system could decrease the likelihood of cross-contamination because it will prevent

¹¹² Kim, June-Ho, et al. "How South Korea Responded to the Covid-19 Outbreak in Daegu." *NEJM Catalyst Innovations in Care Delivery*, Massachusetts Medical Society, Aug. 2020, www.catalyst.nejm.org/doi/full/10.1056/CAT.20.0159.

¹¹³ Chang, Man-Na, et al. "Intra-Hospital Preventive Principles to Protect Frontline Healthcare Workers to Overcome Pandemic COVID-19 in Taiwan." *BMC*, Springer Nature America, 11 June 2020, www.ccforum.biomedcentral.com/articles/10.1186/s13054-020-02983-7.

¹¹⁴ Tan, TW., Chang, CM. & Chang, MN. Intra-hospital preventive principles to protect frontline healthcare workers to overcome pandemic COVID-19 in Taiwan. *Crit Care* **24**, 328 (2020). <https://doi.org/10.1186/s13054-020-02983-7>

unnecessary contact. Fifth, HCWs were separated into two groups to work in fixed units. HCWs and cleaning staff were not allowed to rotate their groups and shifts for at least a month to prevent the virus's spread. Constant monitoring and temperature checks were provided for each group daily. Finally, Taiwan ensured the mental well-being of HCWs through hospital broadcasting services, online resources, the LINE messaging app, and other digital health services¹¹⁵. In summary, Taiwan succeeded in protecting HCWs by establishing comprehensive strategies at the start of the pandemic. The strategies included providing PPE, educating HCWs, standardizing hospital cleaning, monitoring isolated patients with technology, aggressive testing, and providing mental health support.

Canada: While Canada could learn from both Taiwan and South Korea on how to protect HCWs, it is clear that the Canadian Ministry of Health is putting strong efforts into improving and adapting their health system to meet the pandemic demands. To start with, Canada provided regulatory guidance for HCWs following COVID. The regulatory guidance included a new infectious disease emergency leave and other helpful resources and guidelines for HCWs to prevent cross-contamination¹¹⁶. Even more impressive, Canada provided an ethical framework for HCWs to help them make the right moral decision if needed¹¹⁷.

Furthermore, Canada provided a Virtual Care Resource website to emphasize virtual care services and decrease the pressure on emergency centers¹¹⁸. About 47% of Canadians used Virtual care during COVID-19, and about 91% reported

¹¹⁵ Chang , Man-Na, et al. "Intra-Hospital Preventive Principles to Protect Frontline Healthcare Workers to Overcome Pandemic COVID-19 in Taiwan." *BMC, Springer Nature America*, 11 June 2020, www.ccforum.biomedcentral.com/articles/10.1186/s13054-020-02983-7

¹¹⁶ "COVID-19: Support for Workers." *Ontario*, Queen's Printer for Ontario, www.ontario.ca/page/covid-19-support-workers.

¹¹⁷ COVID-19 Pandemic Guidance for the Health Care Sector." *Government of Canada*, Canada, www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/covid-19-pandemic-guidance-health-care-sector.html.

¹¹⁸ " Virtual Care Resources During COVID-19 ." *Canada Health Infoway*, www.infoway-inforoute.ca/en/resource-centre/virtual-care.

satisfactory results¹¹⁹. Despite Canada's efforts, they could not wholly eliminate cross-contamination in hospitals the same way South Korea and Taiwan did. As of September 3rd, according to the Canadian Institute of Health Information, 19.4% of COVID-19 cases in Canada were among HCWs¹²⁰. Physician and journalist Blair Bigham who completed medical school in Ontario, argues that there are four things Canada must do immediately to lower infection rates among HCWs. First, Bigham argues that Canada must bring around 500,000 mechanical ventilators and provide PPE. The current rate of ventilators in Ontario is 12 ventilators for 100,000 people. The second thing Bigham suggested that Canada does is to bring more soldiers to the hospitals to reduce the load on HCWs. The military possesses the feature of mobilization, which could help the government place them strategically where they are needed.

Third, Bigham states that the government must apply more regulatory flexibility and make it easier for physicians to get their practice licenses. Bigham further argues that the Emergency Act of 1985 must be used to its full extent, and all private companies capable of producing PPE or essential ventilators must do so. Finally, Bigham suggests that more Canadians wear a face mask and stay indoors to reduce the HCWs load¹²¹. Based on this paper, Canada can provide a risk-stratification system similar to South Korea and Taiwan to lower the pressure on HCWs. South Korea made care centers for patients that are less or a-symptomatic to reduce the load on HCWs¹²². Canada could also learn from Taiwan how they divided HCWs into two groups to reduce hospital contamination. Another idea worth adapting from Taiwan is the "stock cards," where hospitals fill a paper on all the PPE needed daily. In

¹¹⁹ Zafar, Amina. "Many Canadians Used Virtual Medical Care during COVID-19, Poll Suggests." *CBC*, CBC/Radio-Canada, 8 June 2020, www.cbc.ca/news/health/virtual-care-cma-survey-1.5603713.

¹²⁰ "COVID-19 Cases and Deaths among Health Care Workers in Canada." *Canadian Institute of Health Information*, CIHI, 3 Sept. 2020, www.cihi.ca/en/covid-19-cases-and-deaths-among-health-care-workers-in-canada

¹²¹ Bigham, Blair. "Four Things Canada Needs to Do NOW to Support Frontline Health Care Workers and Save Lives." *HealthyDebate*, 25 Mar. 2020, www.healthydebate.ca/opinions/four-things-canada-needs-to-do-now-covid-19.

¹²² Tan, TW., Chang, CM. & Chang, MN. Intra-hospital preventive principles to protect frontline healthcare workers to overcome pandemic COVID-19 in Taiwan. *Crit Care* **24**, 328 (2020). <https://doi.org/10.1186/s13054-020-02983-7>

summary, Canada did great in setting guidelines and basic principles on protecting HCWs; the next natural step now is to adapt by applying the scientific community advice and furthering HCW's protection.

Australia: Australia did slightly better than Canada in reducing hospital cross-contamination, with about 11% of contamination being from HCWs. According to Victoria State Government Health and Human Services, Australia applied four actions to ensure the safety of HCWs. The first action is data gathering and sharing of HCWs. This action is essential because it will allow the government to quickly track the virus outbreak and learn lessons.

The second action is support for infection prevention control. This action emphasizes broadening the PPE taskforce role to include senior care centers, emergency departments, and intensive care units. In senior care centers, PPE officers are deployed to support the staff and improve infection control. In hospital settings, Australia applied repeated testing and surveillance combined with "PPE spotters" that ensure that hospital staff is wearing PPE. The third action is to improve COVIDsafe workplaces by ensuring social distancing, cleanliness, and safety in aged care and hospital settings. The final action provides increased financial incentives for HCWs to limit workers' mobility, especially during an outbreak¹²³. In September, a late development is Australia launching Infection Control Expert Group (ICEG) and the National COVID-19 Evidence Taskforce led by the Living Guidelines Consortium. The task force seeks to improve COVID guidelines and safety protocols by making them more scientifically consented. Another development is establishing "COVID-NET," a network of epidemiologists or "disease detectives" that can help states, upon request, detect where an outbreak began¹²⁴. It is still left

¹²³ "Protecting Our Healthcare Workers." *Health and Human Services*, Victoria State Government, 2020, www.dhhs.vic.gov.au/sites/default/files/documents/202010/Protectin-g-our-healthcare-workers-action-plan.pdf.

¹²⁴ Hunt, Hon Greg. "Additional Commonwealth Support to Protect Healthcare Workers from COVID-19." *Australia Ministers: Department of Health*, Commonwealth of Australia, 9 Sept. 2020, www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/additional-commonwealth-support-to-protect-healthcare-workers-from-covid-19.

to evaluate how these two late developments will help protect Australian HCWs in the future.

New Zealand: Unlike Taiwan, South Korea, and Canada, New Zealand did not have a preemptive plan to protect HCWs during a pandemic. For example, while Taiwan applied its SARS 2003 plan to stop COVID contamination, New Zealand used their Influenza plan as a base for responding to COVID. New Zealand had no established medical infrastructure to fight COVID¹²⁵. Most of New Zealand's actions in response to COVID were reactive instead of proactive. Luckily, New Zealand adapted very fast and did their best in protecting frontline health workers.

To start, New Zealand provided the necessary PPE for HCWs by having the Ministry of Health make deals with private companies and foreign entities. New Zealand opened registers for local companies to produce PPE. McGuinness Institute thinktank made a list of all the companies that can produce PPE in New Zealand¹²⁶. Another thing New Zealand did was establishing guidelines for HCWs to stay safe at work. New Zealand also emphasized hospital cleanliness with strict protocols and policies¹²⁷. Another thing New Zealand did is to provide an online educational program for HCWs and cleaning staff. Finally, a hospital entrance control system was applied, with the goal of fever screening and obtaining accurate information on all hospital visits¹²⁸. Overall, New Zealand has done a fantastic job listening to the scientific community's advice on protecting HCWs. New Zealand's next step would be to adopt some of the more advanced strategies used in East Asia to prevent hospital cross-contamination, such as improved mobilization and constant hospital supplies evaluation.

¹²⁵ Mazey, S. and Richardson, J., Lesson-Drawing from New Zealand and Covid-19: The Need for Anticipatory Policy Making. *The Political Quarterly*, 91: 561-570. (2020). <https://doi.org/10.1111/1467-923X.12893>

¹²⁶ "Getting Local Companies to Help Make Covid-19 Personal Protective Equipment." *Radio New Zealand*, Radio New Zealand, 31 Mar. 2020, www.rnz.co.nz/news/business/413057/getting-local-companies-to-help-make-covid-19-personal-protective-equipment.

¹²⁷ "COVID-19: Information for Health Professionals." *NZ Ministry of Health*, New Zealand Government, 2020, www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-information-health-professionals.

¹²⁸ Chang, Y-T, Lin, C-Y, Tsai, M-J, et al. Infection control measures of a Taiwanese hospital to confront the COVID-19 pandemic. *Kaohsiung J Med Sci*. 2020; 36: 296– 304. <https://doi.org/10.1002/kjm2.12228>

C. Aggressive Testing and Mask Wearing.

Another common theme in all chosen countries and regions is that their governments prioritized aggressive testing and recommended wearing masks. According to the Central Epidemic Command Center (CECC) of Taiwan, mask-wearing can reduce the odds of transmitting COVID by up to 99%¹²⁹. Aggressive testing strategies are essential because COVID can spread quickly and directly in close contact. Testing can help states and regions follow the spread of COVID, which could help policymakers craft the correct policies at the right time. As for mask-wearing, the CDC published a study on November 11th. The CDC study concluded that masks protect both the wearer and those around them from COVID-19. Masks act as "source control" to block virus particles exhaled by the wearer and provide "filtration for personal protection" by blocking incoming infectious droplets from others, the CDC said in its new guidance¹³⁰. The places examined all encouraged policies of aggressive testing and mask-wearing due to their past experiences with SARS and MERS and/or their reliance on scientists at the beginning of the pandemic.

Starting with Taiwan and South Korea, these states or regions established a mask-wearing culture even before COVID-19. SARS and MERS in those two places made mask-wearing an integral part of their people's culture. Both governments also ramped up mask production by the end of January to ensure sufficient domestic resources. In Taiwan, the production of the mask went from 1.88 million units a day to 2.44 million¹³¹. In South Korea, manufacturers reduced their mask exports to less than 10% and shifted all their supplies domestically to ensure self-sufficiency in January¹³². The governments of both places

¹²⁹ Everington, Keoni. "Wearing Face Masks Prevented Spread of Coronavirus in Taiwan: CECC." *TaiwanNews*, Taiwan News, 4 May 2020, www.taiwannews.com.tw/en/news/3927810.

¹³⁰ Mascarenhas, Lauren. "CDC Now Says Masks Protect Both the Wearers and Those around Them from Covid-19." *CNN Health*, Cable News Network, 10 Nov. 2020, www.cnn.com/2020/11/10/health/masks-cdc-updated-guidance/index.html.

¹³¹ Yi-Fong Su, Vincent et al. "Masks and medical care: Two keys to Taiwan's success in preventing COVID-19 spread." *Travel medicine and infectious disease*, 101780. 4 Jun. 2020, doi:10.1016/j.tmaid.2020.101780

¹³² Lee, Hakyung. "South Korea Takes New Measures to Have Enough Face Masks Domestically amid Coronavirus." *ABC*, ABC News, 27 Feb. 2020,

mandated masks in public with financial fines when not found wearing one. The prices of masks in both places are very affordable (around 0.17 cents), and in most cases, masks in South Korea and Taiwan are free with medical insurance.

Taiwan and South Korea also utilized technologies and private companies to improve their testing capabilities. In South Korea, the country applied rapid and widespread testing. A month after their first initial case, South Korea conducted a 15,000-laboratory test per day¹³³. The high number of tests was made possible with the help of private Korean firms like Kogene Biotech. Taiwan also utilized Artificial Intelligence to test for COVID-19 aggressively and proactively. Taiwan began testing people as early as December 31st, 2019, and continued to scale their testing capacity. In late September, Taiwan tech firms developed a robot capable of processing 2000 COVID results per day¹³⁴.

Australia, Canada, and New Zealand did not have a culture of mask-wearing nor aggressive testing like South Korea and Taiwan, but they all listened to the scientists. Early in the pandemic, scientists and the WHO recommended that countries must improve their testing capabilities¹³⁵. As of November 2020, Australia performs 360 total COVID tests per thousand; New Zealand performed 363 per thousand, and Canada 270 per thousand¹³⁶. In all three countries, those numbers are in the upper 20 percent compared to the rest of the world. New Zealand alone has built a testing capacity of 8000 tests per day.

www.abcnews.go.com/International/south-korea-takes-measures-face-masks-domestically-amid/story?id=69254114.

¹³³ Lee, David, and Jaehong Lee. "Testing on the move: South Korea's rapid response to the COVID-19 pandemic." *Transportation Research Interdisciplinary Perspectives* vol. 5 (2020): 100111. doi:10.1016/j.trip.2020.100111

¹³⁴ "Taiwan Tech Firm: Robot Capable of Processing 2,000 Coronavirus Tests Results Per Day ." VOA, VOA News, 28 Sept. 2020, www.voanews.com/covid-19-pandemic/taiwan-tech-firm-robot-capable-processing-2000-coronavirus-tests-results-day.

¹³⁵ "Laboratory Testing Strategy Recommendations for COVID-19." WHO, World Health Organization, 21 Mar. 2020, www.apps.who.int/iris/bitstream/handle/10665/331509/WHO-COVID-19-lab_testing-2020.1-eng.pdf.

¹³⁶ Hasell, J., Mathieu, E., Beltekian, D. *et al.* A cross-country database of COVID-19 testing. *Sci Data* 7, 345 (2020). <https://doi.org/10.1038/s41597-020-00688-8>

While wearing a mask was not mandated in the three countries, it was strongly encouraged. Canada, Australia, and New Zealand Governments nudged the people to sanitize, wear masks, and protect themselves and others during COVID. In Australia, the federal government allocated \$30 million in early March to spend on hygiene and mask-wearing advertisement¹³⁷. In New Zealand, scientists were given a platform and a stage in meetings and interviews, which helped encourage people to wear masks and spread a culture of awareness¹³⁸. In Canada, the government worked hard in nudging people toward a culture of mask-wearing. As of late September, a survey conducted by the Association for Canadian Studies found 83% of Canadians believe that wearing a mask during a coronavirus pandemic is a civic duty¹³⁹, a 13% increase since July. In summary, Canada, New Zealand, and Australia did not mandate masks but continued to encourage people to wear one through advertising, transparent communication, and continued trust and reliance on scientists.

D. Government Effectiveness: Centralization of Decision-Making.

A common theme among the governments of the four places studied was their respective approaches unified decision making under one umbrella. Whether it is the CECC in Taiwan, the KCDC in South Korea, the National Cabinet in Australia, the Public of Health Agency of Canada, or the Ministry of Health in New Zealand, all chosen countries or regions centralized decision making for multiple reasons.

First, centralizing leadership could improve the clarity, coherence, and speed of the message. For example, the failure of

¹³⁷ Doran, Matthew. "Federal Government Rolls out Coronavirus Advertising Campaign after Criticism of Mixed Messages." *ABC*, ABC News, 14 Mar. 2020, www.abc.net.au/news/2020-03-14/government-coronavirus-advertising-blitz-education-campaign/12056700.

¹³⁸ Taylor, Chloe. "How New Zealand's 'Eliminate' Strategy Brought New Coronavirus Cases down to Zero." *CNBC*, CNBC LLC, 5 May 2020, www.cnbc.com/2020/05/05/how-new-zealand-brought-new-coronavirus-cases-down-to-zero.html.

¹³⁹ Berthiaume, Lee. "Majority of Canadians Say Wearing a Mask during Coronavirus Pandemic Is a Civic Duty: Poll." *Global News*, Corus Entertainment Inc, 22 Sept. 2020, www.globalnews.ca/news/7350128/canadians-support-wearing-mask-coronavirus/.

the KCDC in South Korea during the MERS was due to its lack of authority, where it had to spend more time explaining to bureaucracies than making decisions¹⁴⁰. When COVID-19 hit, South Korea learned from the MERS white page to give more authority to the KCDC, which helped KCDC become more effective and precise. As of May 14th, 70% of Koreans are happy with KCDC performance¹⁴¹, with Wall Street Journal calling Jung Eun-Kyong, head of KCDC, the real hero who saved South Korea from COVID-19¹⁴².

Second, the centralization of decision-making can empower scientists when they are needed the most. In Canada, the Public Health Agency of Canada (PHAC) empowered scientists' voices early in the crisis through research funding. Scientists' voices became so dominant in the conversation that Dr. Bonnie, British Columbia's provincial health officer, became one of Canada's most endorsed and loved figures. During a crisis, scientists' empowerment is critical because they are the voice of reason, data, and accuracy. Furthermore, empowering scientists and health administrators during government meetings could eliminate political conflicts and empower minorities. At a time of crisis, the need for ensuring everyone's safety and representation surpasses the need for fair representation. In Australia, the National Cabinet has eliminated the need for checks and balances during the crisis. The National Cabinet made the voice of scientists, minorities, and indigenous populations heard more than ever. Scientists were given a seat in every meeting, and minorities were better able to represent themselves.

¹⁴⁰ Fox, Justine. "What Prepares a Country for a Pandemic? An Epidemic Helps." *Bloomberg*, Bloomberg, 18 Mar. 2020, www.bloomberg.com/opinion/articles/2020-03-18/covid-19-response-better-in-countries-with-sars-mers-coronavirus.

¹⁴¹ Oh, Seung-Youn. "South Korea's Success Against COVID-19." *The Regulatory Review*, University of Pennsylvania Law School, 14 May 2020, www.theregreview.org/2020/05/14/oh-south-korea-success-against-covid-19/.

¹⁴² Walker, Sam. "Thank God for Calm, Competent Deputies." *The Wall Street Journal*, Dow Jones & Company, Inc., 4 Apr. 2020, www.wsj.com/articles/in-the-coronavirus-crisis-deputies-are-the-leaders-we-turn-to-11585972802.

In summary, decision-making centralization is vital for a successful response during a pandemic because it could improve accuracy and coherence. Additional benefits include science and minority representation and the elimination of political conflicts during a health crisis. It is essential for countries that politicized COVID at the beginning of the crisis to stop doing so by empowering their health ministry and scientists' voices. Turning COVID into a political disagreement could undermine its risks, and putting the response in the scientists' hands is the only way a country could ensure a proper effective response.

E. Transparent and Clear Communication.

Another common theme that best responders emphasized is transparent communication. According to the WHO, transparency is a critical component for effective communication during a pandemic because it helps build trust and credibility. Transparent communication must also extend to include communicating uncertainties, errors, failures, and misconceptions. The five best regional or national responses to COVID offer excellent examples of how transparent communication is essential to gain public trust.

Taiwan: Taiwan made transparency a vital part of its communication. Taiwan offered daily briefing since CECC was activated on January 20th. In addition to those daily briefings, Taiwan Vice President Chen, a certified epistemologist, has been posting and responding to COVID-related social media questions. Chen is committed to posting daily updates on both Facebook and Twitter. Daily interaction via social media helped increase public awareness and enhance transparency. Second, according to Ellison Laskowski¹⁴³,

Taiwan achieved further transparency and gained public trust by implementing bottom-down solutions, where citizens can witness the impact of their collaboration. An example of that would be the online “e-mask 2.0” system where the Taiwanese government coordinated with convenience store owners to develop a platform where people can order masks online for

¹⁴³ Laskowski, Ellison. “Taiwan’s Coronavirus Lesson—Technology with Transparency.” *GMF*, GMF Publications, 13 May 2020, www.gmfus.org/blog/2020/05/13/taiwans-coronavirus-lesson-technology-transparency.

delivery or pickup¹⁴⁴. In this example, the government coordinated with the public to achieve a bottom-up solution and provide masks where they are needed the most. Overall, when designing their response to COVID, Taiwan emphasized citizens' participation in multiple instances, building a sense of trust and national pride. Taiwan combined constant, transparent communication through daily briefing, social media, and other government websites with citizens' participation and engagement to achieve a high level of public trust and collaboration¹⁴⁵.

South Korea: After a challenging experience with MERS 2015, South Korea adopted a transparency policy when communicating risks with COVID-19. According to MERS white paper, South Korea had the highest number of MERS cases next to Saudi Arabia, but they refrained from disclosing that information in fear of public panic. South Korea's position in MERS caused tension between the central and local governments. The tension led to the mayor of Seoul Metropolitan holding an emergency briefing where he released disclosed information and criticized the central government's lack of transparency in handling MERS¹⁴⁶. A painful yet crucial lesson that the white paper concluded with is that the South Korean government should have been more transparent in their response to MERS.

The South Korean government was much more transparent in its response to COVID-19. First, South Korea used social media to increase citizens' engagement and awareness. Real-time resources could mitigate misinformation and build trust through transparency. Second, South Korea provided public websites that include real-time statistics and up to date information on cases and mortality rates. These statistics' goal is to build transparency and provide real-time data for researchers and analysts to understand how the virus spread

¹⁴⁴ Kluth, Andreas. "If We Must Build a Surveillance State, Let's Do It Properly." *Bloomberg*, Bloomberg, 22 Apr. 2020, www.bloomberg.com/opinion/articles/2020-04-22/taiwan-offers-the-best-model-for-coronavirus-data-tracking.

¹⁴⁶ Kwaak, Jayyup. "MERS, Rumors Spread in South Korea." *The Wall Street Journal*, Dow Jones & Company, Inc., 5 June 2020, www.wsj.com/articles/mers-rumors-spread-in-south-korea-1433484078.

and create a strategic response. Citizens were informed instantly when the number of cases in their location has risen. Finally, South Korea used to share recommendations, statistics, and infographics to raise awareness. The high level of civil awareness was crucial in South Korea and Taiwan's successful response¹⁴⁷. Overall, it could be argued that in both Taiwan and South Korea, the government's transparent communication and encouragement of citizens' engagement made the public to act more "maturely" during COVID. In the context of pandemic prevention, "maturely" means that citizens are more likely to follow health guidance due to their awareness and engagement. Citizens were more likely to participate in healthy activities such as social distancing and wearing masks because the government is actively communicating with them through phone notifications and social media. Those citizens feel like they are a part of the solution because they can see the impact of their engagement and participation¹⁴⁸.

Canada: Canada also prioritized transparent communication and citizens' trust during COVID-19 and while developing their COVID app. Canada made it easy for Canadians to opt-out of information collection. Canada also empowered the Access to Information Act, giving Canadians the right to access or delete their government record information. The Canadian government provided an open record on all their spending and hospital funds and expenses during COVID. Finally, Canada provided long short term economic and social recovery plans¹⁴⁹. An area where Canada could improve is providing a constant update on hospitals' state of preparedness. Canada still lacks a functional website that can inform the community when there is a shortage of masks or PPE¹⁵⁰.

¹⁴⁷ Fisher, Max, and Choe Sang-Hun. "How South Korea Flattened the Curve." *The NY Times*, The New York Times Company, 23 Mar. 2020, www.nytimes.com/2020/03/23/world/asia/coronavirus-south-korea-flatten-curve.html.

¹⁴⁸ Tworek, Heidi. "Lessons Learned from Taiwan and South Korea's Tech-Enabled COVID-19 Communications ." *Brooking*, The Brookings Institution, 6 Oct. 2020, www.brookings.edu/techstream/lessons-learned-from-taiwan-and-south-koreas-tech-enabled-covid-19-communications/.

¹⁴⁹ "Canadian Security Intelligence Service: Transparency." *Government of Canada*, Canada, www.canada.ca/en/security-intelligence-service/corporate/transparency.html.

¹⁵⁰ Dyer, Evan. "The Great PPE Panic: How the Pandemic Caught Canada with Its Stockpiles Down." *CBC*, CBC/Radio-Canada, 11 July 2020,

Australia: Australia also integrated transparency into its strategic response to COVID. On April 17th, the Office of the Australian Information Commissioner OAIC published a joint statement on transparency and access to information during COVID¹⁵¹. The statement highlights Australia's early effort in channeling transparent communication and privacy protection in multiple ways. OAIC statement emphasized citizens' right to access information. OAIC recognizes that the government must take significant and impactful decisions shortly, but still believe that citizens' right to access information will be vital during the pandemic.

A dedicated government website (covid19data.com.au) was created to help inform citizens access their local cases and know hospital capacities and other vital information. Second, the OAIC statement encouraged transparent communication during the pandemic. Transparent communication could be achieved by increased protection of personal data and good record keeping¹⁵².

Australia empowered non-profit groups such as Transparency National Australia TNA during COVID and allowed them to work with the Senate¹⁵³. TNA provided the Senate with a list of 11 recommendations that could increase transparency, including a fair system of appointment and Establishing the NCCC conflict of interest disclosure register. In both New Zealand and Australia, Transparency National became

www.cbc.ca/news/politics/ppe-pandemic-covid-coronavirus-masks-1.5645120.

¹⁵¹ "Joint Statement on Transparency and Access to Information during the COVID-19 Outbreak ." *Office of Australian Information Commissioner*, Australian Government, 17 Apr. 2020, www.oaic.gov.au/updates/news-and-media/joint-statement-on-transparency-and-access-to-information-during-the-covid-19-outbreak/.

¹⁵² "Joint Statement on Transparency and Access to Information during the COVID-19 Outbreak ." *Office of Australian Information Commissioner*, Australian Government, 17 Apr. 2020, www.oaic.gov.au/updates/news-and-media/joint-statement-on-transparency-and-access-to-information-during-the-covid-19-outbreak/.

¹⁵³ "Covid-19 Crisis Response." *Transparency International*, Transparency International Australia, 2020, transparency.org.au/accountable-government/covid-19-response/.

the watchdog that writes reports on government transparency during COVID. Transparency National and other NGOs monitor and assess Australia and New Zealand transparency during their responses to COVID, which helped keep politicians in line. Finally, Australia applied the privacy act to create COVIDsafe and made privacy the main priority when the app was constructed. In summary, Australia continued to deliver transparent communication, protect citizens' privacy, and allow for easy access to information, which helped establish trust and build public collaboration.

New Zealand: New Zealand's example of transparency is not far from Australia. They, too, incorporated transparency into their communication by establishing legislation that protects privacy. Dr. Wiles argues that the Prime Minister put the people's health and scientists' recommendations first in her speeches, which increased transparency¹⁵⁴. New Zealand also added optional features such as "leave no trace" into their COVID detection app to ensure that people can delete their information. NZ COVID App deletes information 60 days later automatically. The app also uses an advanced encryption framework designed with privacy commissioner oversight.

Like Australia, New Zealand empowered NGOs such as Transparency International to ensure oversight. NGOs like Transparency International oversight continues to track and monitor New Zealand's transparency and corruption then make the proper recommendations to improve it. Finally, New Zealand continued to lead by example, making it easier for citizens to follow strict quarantine guidelines. New Zealand health minister David Clark was stripped from his responsibilities in April. Clark drove 12 miles away from his home to take a walk on the beach with his family. Clark later resigned and called himself "stupid" for his decision¹⁵⁵. Overall, New Zealand established public trust with scientific transparency, privacy protection, and leading by example.

In summary, standard policies that selected countries or regions applied to increase transparency include scientist empowerment and database building. Other policies include

¹⁵⁴ "Coronavirus: How New Zealand Relied on Science and Empathy." *BBC News*, BBC, 20 Apr. 2020, www.bbc.com/news/world-asia-52344299.

¹⁵⁵ "Coronavirus: New Zealand Minister Resigns after Lockdown Blunders." *BBC News*, BBC, 2 July 2020, www.bbc.com/news/world-asia-53259236.

privacy protection, constant monitoring, and improved public access to information.

F. International Coordination with the World Health Organization

The World Health Organization (WHO) is the agency of the UN responsible for public health. The WHO has 194 member states, which help them coordinate a global response to an urgent health crisis¹⁵⁶. The WHO is an organization with a rich history, multiple successes, and a few failures. Perhaps the WHO achieved the greatest triumph in 1980 when it completely eradicated smallpox, which killed 35% of its victims¹⁵⁷. The WHO also successfully eradicated the Rinderpest virus and continue to coordinate with countries to eliminate global diseases. The WHO cannot force rules and regulations on a member state and can only collaborate and make recommendations. Moreover as a clearinghouse, its data and conclusions are only as good as the information states and other entities chose to share—including the scope and timing of such sharing. But that can have significant effect in the context of a pandemic.

In April 2020, Donald J Trump announced that the US would withdraw their support from the WHO. Trump justified his decision by stating that: 1) the WHO failed to obtain accurate information and transparently share it. 2) During January, it promoted the idea that there is no human-to-human transmission. 3) its heavily dependent on China, and 4) they opposed travel restrictions in January¹⁵⁸. While some of Mr. Trump's claims might be true, it is essential not to ignore the WHO's rich history. The WHO successfully fought pandemics eliminated diseases, and eradicated others. It is vital to recognize that most Trump claims were in the January timeframe when there was no to little information on COVID in general. The WHO is a trusted source because they use scientific methods to obtain information. The WHO must also use

¹⁵⁶ "About WHO." *WHO*, World Health Organization, www.who.int/about.

¹⁵⁷ "Disease Eradication." *The History of Vaccine*, The College of Physicians in Philadelphia, 2018, www.historyofvaccines.org/content/articles/disease-eradication.

¹⁵⁸ Reality Check Team "Coronavirus: What Are President Trump's Charges against the WHO?" *BBC News*, BBC, 8 July 2020, www.bbc.com/news/world-us-canada-52294623.

diplomacy to coordinate with countries successfully, including China. While it could be argued that China has a strong influence on the WHO, it is in the US's best interest to corporate and coordinate with the WHO and China and restores its global positioning. Breaking ties with the WHO will not decrease China's dominance but increase it globally. Trump also ignored that by February 11th, the WHO director-general Tedros urged world leaders to prioritize containing the virus at a WHO briefing¹⁵⁹. The responses of the states and regions that are the subject of this article suggest that despite the allegations and relationships between WHO and certain members coordination with the WHO could help fight the virus. Here is a depth look at how those places collaborated with the WHO:

Taiwan: Taiwan is a particular case because despite not being a member of the WHO, Taiwan had one of the best COVID responses globally. Taiwan's exceptional model on preventing COVID made it harder for the WHO to ignore them. Taiwan followed the WHO standards on testing and case definition and continued to share updates with the WHO on International Health Regulations and other global health platforms¹⁶⁰. While much politics might be playing into this, Taiwan continues to offer their hand to the WHO. According to Taiwan, it is the WHO that does not share information with Taiwan¹⁶¹. Taiwan continues to provide the WHO with detailed cases and prevention methods. According to Reuters¹⁶², Taiwan has been excluded from 70% of WHO technical meetings in the last decade. In response, both the WHO and China claim that Taiwan has been included in COVID meetings. Despite all these circumstances, Taiwan continues to coordinate, share, and follow the WHO guidelines.

¹⁵⁹ Keith, Tamara. "A Timeline Of Coronavirus Comments From President Trump And WHO." *NPR*, *NPR*, 15 Apr. 2020, www.npr.org/sections/goatsandsoda/2020/04/15/835011346/a-timeline-of-coronavirus-comments-from-president-trump-and-who.

¹⁶⁰ Lin C, Braund WE, Auerbach J, et al. Policy Decisions and Use of Information Technology to Fight COVID-19, Taiwan. *Emerging Infectious Diseases*. 2020;26(7):1506-1512. doi:10.3201/eid2607.200574

¹⁶¹ Chen , Yu-Jie, and Jerome Cohen. "Why Does the WHO Exclude Taiwan?" *Council on Foreign Relations*, Council on Foreign Relations, 9 Apr. 2020, www.cfr.org/in-brief/why-does-who-exclude-taiwan.

¹⁶² "Taiwan Says WHO Not Sharing Coronavirus Information It Provides, Pressing Complaints." *Reuters*, *Reuters*, 30 Mar. 2020, www.reuters.com/article/us-health-coronavirus-taiwan-who/taiwan-says-who-not-sharing-coronavirus-information-it-provides-pressing-complaints-idUSKBN21H1AU.

South Korea: South Korea's coordination with the WHO went beyond early prevention and data sharing of the virus. Like Taiwan, South Korea continued to serve as a global model for COVID. South Korea coordinated their alert with WHO recommendations and guidelines. South Korea called for giving WHO teeth and power in the face of new diseases¹⁶³. South Korea currently is collaborating with the WHO to provide COVID-19 PCR test kits for 24 countries in the African Region¹⁶⁴. The WHO has recognized South Korea's efforts in combatting COVID at a global level.

Canada: Health Canada released a statement that emphasized its membership in the WHO and the International Coalition of Medicines Regulatory Authorities (ICMRA)¹⁶⁵. The stated goal was to strengthen the early collaboration among Canada, ICMRA, and the WHO. Canada stressed their commitment to promote evidence-based regulatory practices. Canada also participates in the WHO research and development (R&D) blueprint vaccines to develop the COVID vaccine. Other international organizations that helped craft the Canadian COVID response include the International Post-Market Surveillance Group, International medical device regulators, and Pan American Health Organization¹⁶⁶.

¹⁶³ Nebehay, Stephanie, and Emma Farge. "South Korea Calls for Giving WHO Teeth in Face of New Diseases." *Reuters*, Reuters, 18 May 2020, www.reuters.com/article/us-health-coronavirus-who-southkorea/south-korea-calls-for-giving-who-teeth-in-face-of-new-diseases-idUSKBN22U1FC.

¹⁶⁴ "The Republic of Korea and WHO Sign New Memorandum of Understanding, Committing US\$ 6 Million in COVID-19 PCR Test Kits for 24 Countries in the African Region." *WHO*, World Health Organization, 17 Aug. 2020, www.who.int/news/item/17-08-2020-the-republic-of-korea-and-who-sign-new-memorandum-of-understanding-committing-6-million-usd-in-covid-19-pcr-test-kits-for-24-countries-in-the-african-region.

¹⁶⁵ Pennington, Sarah, and Kristin Wall. "Health Canada Collaborates with International Partners to Address Pandemic." *Pharma in Brief*, Norton Rose Fulbright LLP, 9 May 2020, www.pharmainbrief.com/2020/05/health-canada-collaborates-with-international-partners-to-address-pandemic/.

¹⁶⁶ "Health Canada's Regulatory Response to COVID-19: International Engagement." *Government of Canada*, Canada, 2020, www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/engaging-international-partners.html#a2-1.

Australia: While the Australian prime minister agreed with Donald J Trump that the WHO does need changes, he continued following the WHO guidelines amid the pandemic. Morrison does agree that the WHO has been influenced by China but still followed their scientific guidelines. An example was when Australia started controlling international travels in February; they continued to apply the WHO guidelines regarding sanitization and temperature checks. Schwartz argues that Australia's early international coordination efforts were a critical factor in their successful response¹⁶⁷. On November 26th, 2020, the EU and Australia signed a bilateral framework to strengthen coronavirus recovery by working on a vaccine, reducing trade barriers, and supporting the WHO¹⁶⁸.

New Zealand: New Zealand declared COVID an outbreak three days after the World Health Organization announced it. New Zealand took China and the WHO's early reports of COVID to determine the appropriate strategy. WHO Regional Director for the Western Pacific, Dr. Takeshi Kasai, praised New Zealand's early strategy for their collaboration with WHO, in addition to their aggressive testing, strict lockdown, clinical management, and contact tracing. New Zealand continues to collaborate with the WHO. "WHO provided a valuable trove of information, collated from many sources, analyzed by WHO's experts and presented very clearly." Dr. Bloomfield, New Zealand Director of General Health, stated. In this quote, Dr. Bloomfield recognized that outbreak updates and risk assessments from the WHO played a crucial role in New Zealand's successful response to COVID. Furthermore, Dr. Bloomfield credited the WHO strategies in COVID surveillance and response, in addition to laboratory capacity, infection prevention and control, and risk communication. "The strategies were "indispensable in the current pandemic and have stood well the test of time,¹⁶⁹" Dr. Bloomfield stated. In

¹⁶⁷ Buchan, Patrick Gerard. "Australia Goes Hard and Goes Early on Covid-19." *CSIS*, Center for Strategic and International Studies, 15 Apr. 2020, www.csis.org/analysis/australia-goes-hard-and-goes-early-covid-19.

¹⁶⁸ "Joint Press Release: EU-Australia Leaders' Virtual Meeting ." *European Council*, Council of the European Union, 26 Nov. 2020, www.consilium.europa.eu/en/press/press-releases/2020/11/26/joint-press-release-eu-australia-leaders-virtual-meeting/.

¹⁶⁹ "New Zealand Takes Early and Hard Action to Tackle COVID-19." *WHO*, World Health Organization, 15 July 2020,

summary, despite New Zealand's lack of clinical management capabilities at the beginning of the pandemic, New Zealand's reliance on the WHO guidance and recommendations helped them manage COVID successfully.

G. Economy: Economic and Social support legislations & Policies

States and regions that responded the best to COVID tried to cushion the economy's hit by providing economic and social support legislations and policies. Those policies aim to help those that were impacted by COVID the most. The following is an in-depth look at the selected national or regional economic and social support legislation and strategies:

Taiwan: The Taiwanese economy surprised the globe with a GDP growth of 3.3% compared to the third quarter from a year ago. Even more impressive, Taiwan kept GDP growth in 2020 despite all neighboring countries' decline in growth rate. During the first five months of the pandemic, Taiwan gained an economic growth of 1.7%. In comparison, China suffered an economic decline of 7.7%, and Japan's economy declined by 8.4% in the same five-month period¹⁷⁰. Taiwan applied multiple strategies to maintain and improve its economy during COVID. One of the main strategies discussed multiple times in this research is that Taiwan did not shut down its economy. Instead, Taiwan decided to apply a robust contact tracing program that utilized its infrastructural and technological capabilities¹⁷¹.

Taiwan combined strict testing protocols with advanced technology and aggressive quarantine measures. Due to its

www.who.int/westernpacific/news/feature-stories/detail/new-zealand-takes-early-and-hard-action-to-tackle-covid-19.

¹⁷⁰ Shih-chung, Liu. "Taiwan Faces a Changed Economic Outlook in Asia Following COVID-19." *Brooking*, 29 June 2020, www.brookings.edu/blog/order-from-chaos/2020/06/29/taiwan-faces-a-changed-economic-outlook-in-asia-following-covid-19/.

¹⁷¹ Duff-Brown, Beth. "How Taiwan Used Big Data, Transparency and a Central Command to Protect Its People from Coronavirus." *Stanford Health Policy*, Stanford University, 3 Mar. 2020, www.healthpolicy.fsi.stanford.edu/news/how-taiwan-used-big-data-transparency-central-command-protect-its-people-coronavirus.

effective control of the virus, Taiwan's unemployment rate stayed the same (4%) even during COVID. "Compared with other emerging economies in the region, Taiwan's labor market is relatively resilient due to the low degree of pandemic shock," said Ma Tieying, an economist with DBS Bank in Singapore¹⁷². Another factor that helped maintain the Taiwanese economy is the public funding to improve communication networks and environmental projects, which helped increase employment in construction and infrastructure sections¹⁷³. Finally, the global demand for Taiwanese technologies increased during COVID, especially with computer makers like Asus and Acer. The higher demand for Taiwanese technology could be because of the high global demand for virtual jobs and communication. Taiwan Semiconductor Manufacturing alone is expected to hire 8000 people from October to December¹⁷⁴.

South Korea: South Korea is currently experiencing long term economic growth despite COVID early impact. In the latest OECD projection, South Korea's economy is predicted to have one percent GDP contraction, the second-best globally, China being the first ¹⁷⁵. South Korea attributes its success in cushioning the pandemic economic impact on multiple attributes. According to Google Mobility Data, South Korea did not overhaul its economy when the pandemic hit; instead, South Korea relied on contact tracing and AI technology to predict and respond to the virus. Second, after it ensured self-sufficiency, South Korea grew back its export market. In September 2020, South Korea grew its exports to 23.3% in the US and 15.4% in

¹⁷² Jennings, Ralph. "Taiwan's Job Market Outlook Gets Top Marks Due to Island's Effective Control of Coronavirus." *The Coronavirus Pandemic*, South China Morning Post, 25 Sept. 2020, www.scmp.com/economy/china-economy/article/3102865/taiwans-job-market-outlook-gets-top-marks-due-islands

¹⁷³ "Taiwan Government and Institution Measures in Response to COVID-19." KPMG, KPMG International Limited, 18 Nov. 2020, home.kpmg/xx/en/home/insights/2020/04/taiwan-government-and-institution-measures-in-response-to-covid.html.

¹⁷⁴ "Taiwan's Has the Most Dynamic Post-COVID-19 Economy in the World." *Asia News*, Fondazione PIME Onlus, 25 Sept. 2020, www.asianews.it/news-en/Taiwan%E2%80%99s-has-the-most-dynamic-post-COVID-19-economy-in-the-world-51137.html.

¹⁷⁵ Larsen, Morten. "COVID-19 Has Crushed Everybody's Economy—Except for South Korea's." *Foreign Policy*, The Slate Group, 16 Sept. 2020, www.foreignpolicy.com/2020/09/16/coronavirus-covid-economic-impact-recession-south-korea-success/.

Europe compared to a year prior¹⁷⁶. Finally, South Korea applied a \$12.2 Billion fiscal response to COVID while keeping the tap open for additional stimulus packages for long term economic impact. The OECD mentioned that South Korea's fiscal response was vital in their successful economic response to COVID due to its adaptability and flexibility. According to Morten Larsen¹⁷⁷, a Foreign Policy journalist, South Korea utilized its stimulus package better than other countries in two different ways. First, businesses were open, making citizens consume more and save less, which helped stimulate the Korean economy. Second, some South Korean provinces used unique and creative solutions to ensure the stimulus spending will enrich the economy. For example, Gyeonggi province's governor made it that the stimulus uses a non-cash payment technology, where the currency can only be used in local shops and over the next three months. These methods ensured that stimulus packages would not be hoarded and used to enrich and revive the Korean economy. "We used the [money] to eat out at local restaurants; we ate out more often than usual to use the emergency funds,¹⁷⁸" said Lee Jong-Hyang, a mother in her 50s who lives in Gyeonggi province.

Canada: One of Canada's most significant achievement is that they managed to strategize a long-term economic plan that recovered the Canadian economy from COVID in 6 months. Canada's economic response to COVID is nothing shorter than success. Canada suffered an 8% and 39% contraction in the first and second quarter of 2020. Then, they did grow at an annualized rate of 48% in the third quarter¹⁷⁹. In comparison, the US GDP was lower by around 16% in the same third

¹⁷⁶ "Taiwan's Has the Most Dynamic Post-COVID-19 Economy in the World." *Asia News*, Fondazione PIME Onlus, 25 Sept. 2020, www.asianews.it/news-en/Taiwan%E2%80%99s-has-the-most-dynamic-post-COVID-19-economy-in-the-world-51137.html.

¹⁷⁷ Larsen, Morten. "COVID-19 Has Crushed Everybody's Economy—Except for South Korea's." *Foreign Policy*, The Slate Group, 16 Sept. 2020, www.foreignpolicy.com/2020/09/16/coronavirus-covid-economic-impact-recession-south-korea-success/.

¹⁷⁸ Larsen, Morten. "COVID-19 Has Crushed Everybody's Economy—Except for South Korea's." *Foreign Policy*, The Slate Group, 16 Sept. 2020, foreignpolicy.com/2020/09/16/coronavirus-covid-economic-impact-recession-south-korea-success/.

¹⁷⁹ Ghosh, Indradip. "Canadian Economic Recovery to Be Weaker as COVID-19 Cases Resurge, Reuters Poll Shows." *Reuters*, Reuters, 22 Oct. 2020, www.reuters.com/article/us-canada-economy-poll-idCAKBN2771UZ.

quarter¹⁸⁰. Even more impressive, economic analysts predict that Canada's economy will not be impacted as hard by the second COVID wave, with a projection of 5.1% and 5.2% growth in the fourth quarter of 2020 and the first quarter of 2021. Canada cushioned the economic impact of COVID by doing the following:

First, On March 18th, Canada offered a detailed economic response plan to stabilize the economy during COVID. The Canadian government was one of the first global advocates for economic relief. The Canadian economic plan included economic benefits totaling \$107 billion for Canadians. The Canadian response plan was loved by Canadian and endorsed by economists due to its attention to detail, flexibility, and inclusivity. The economic plan included minorities, children, indigenous groups, students, and women. It also included individuals, businesses, sectors, organizations, provinces, and territories. Economic benefits included policies to prevent layoffs, such as Canadian Emergency Wage Subsidies covering up to 75% of an employee wage until late August 2020. Other benefits include tax reliefs for businesses and rent assistance programs¹⁸¹.

Second, Canada kept the employment rate high despite the economic impact of COVID. The Canadian assistance program, also known as the Canadian Economic Recovery Benefit (CERB), was accessed by approximately 9 million people when COVID hit. Canadians received \$2000 for four months starting from March to help them cope with the pandemic and stay home. When the economy opened back up in May, Canada created 290,000 new jobs. The employment rate went up 6.3% in May alone. "Fiscal stimulus programs should be on standby, ready to be deployed or increased in order to combat another shutdown," said Kristina Hooper, global market strategist at Invesco Canada¹⁸².

¹⁸⁰ "Gross Domestic Product, Third Quarter 2020 (Advance Estimate) ." *Bureau of Economic Analysis* , The United States Government, 29 Oct. 2020, www.bea.gov/news/2020/gross-domestic-product-third-quarter-2020-advance-estimate

¹⁸¹ " Canada's COVID-19 Economic Response Plan." *Government of Canada*, Canada, 2020, www.canada.ca/en/departement-finance/economic-response-plan.html.

¹⁸² Olives, David. "The Numbers Don't Lie: Why the Canadian Economy Is Already in Much Better Shape than It Looks." *The Star*, Toronto Star Newspapers Ltd, 19 June 2020,

Third, Lindeman argues that Canada's safety nets helped them cope with COVID faster than the US¹⁸³. Lindemen argues that even without CERB, Canada made safety nets in the health care and labor force, which helped Canadians feel secure and stay at home from March to May. Lindemen supports her theory with data from the Urban Institute that shows that adults within a family that lost a job were about three times more likely to become uninsured within states that did not expand Medicare. While tough to imitate, Canada's availability of safety nets helped Canadians cope with the virus and stay home.

Finally, Canada prioritized Small and Medium-sized Enterprises SMEs. SMEs are an essential component of the Canadian economy because they employed 69.7% of Canadians as of 2017¹⁸⁴. The Canada Emergency Business Account (CEBA) provides \$40,000 interest-free loans for SMEs impacted by COVID¹⁸⁵. Other tools include The Canada United Small Business Relief Fund (CUSBRF), which is directed toward relieving small local businesses and adopting digital technology¹⁸⁶.

In summary, Canada Economic Plan was a success because it was inclusive, flexible, and detailed. Canada's Economic plan also prioritized SMEs and local businesses, which are the Canadian economy's backbone. Finally, Canada had safety nets in healthcare and the labor force, which helped it decrease unemployment and recover faster.

Australia: The Australian economy was heavily impacted by COVID, which came while Australia was still struggling with

<https://www.thestar.com/business/opinion/2020/06/20/from-employment-to-deficits-heres-where-the-economy-stands-and-where-were-headed.html>

¹⁸³ Lindeman, Tracey. "What Canada's COVID Response Can Teach the U.S. about Social Safety Nets." *Fortune*, Fortune Media IP Limited, 23 Oct. 2020, www.fortune.com/2020/10/23/canada-unemployment-cerb-economy-growth-coronavirus/.

¹⁸⁴ "Key Small Business Statistics." *Government of Canada*, Canada, Jan. 2019, www.ic.gc.ca/eic/site/061.nsf/eng/h_03090.html.

¹⁸⁵ "Managing Your Business during COVID-19." *Government of Canada*, Canada, 2020, www.canada.ca/en/services/business/maintaining-your-business.html.

¹⁸⁶ "Canada United Small Business Relief Fund." *OCC*, Ontario Chamber of Commerce, www.occ.ca/canada-united-small-business-relief-fund/.

the worst wildfires it has witnessed in decades¹⁸⁷. COVID hit Australia While Mr. Morrison was focused on applying a 12-month plan to return the economy to a budget surplus for the first time in a decade¹⁸⁸. COVID lowered the Australian GDP by 0.3% and 7% in the second quarter, respectively. Despite all that, the Australian economy is showing signs of recovery in the third quarter of 2020. According to ABC News, Australians' unemployment fell from 9.3% to 7.2% in October alone¹⁸⁹. Westpac-Melbourne Institute Index of Consumer Sentiment recorded 35.3% from late August to mid-November¹⁹⁰. The Reserve Bank estimates an increase of 1.4% and 1.5% in the third and fourth quarters. According to Gareth Aird, Commonwealth Bank's (CBA) Head of Australian Economics, Australia's economic policies and strategies will pay off 2021. "We believe the metaphorical 'bridge' has been built very well and sets Australia up for a prosperous next two years¹⁹¹."

As a start, an overview of Australia's Economic Recovery Plan is vital to understand how Australia managed its economy during COVID. According to the Australia Budget for 2020-2021, The Australian economic plan emphasized employers' and employees' support¹⁹². Special attention was also given to SMEs. Small and Medium Enterprises Guarantee Scheme supports up to \$40 billion in lending. Under the same scheme, the

¹⁸⁷ He, Laura, and Angus Watson. "Australia's Economy Had Its Worst Quarter on Record. Now It's in a Historic Recession." *CNN*, Cable News Network, 2 Sept. 2020, www.cnn.com/2020/09/02/economy/australia-gdp-recession-intl-hnk/index.html.

¹⁸⁸ Scott, Jason. "After Taming The Pandemic, Australia Tries to Save Its Economy." *Bloomberg*, Bloomberg L.P, 30 Sept. 2020, www.bloomberg.com/news/articles/2020-09-30/australia-lays-out-rescue-plan-for-economy-stung-by-covid-19.

¹⁸⁹ Speers, David. "After a Rollercoaster 2020, Australia's Economy Is Showing Signs of Recovery." *ABC*, ABC, 21 Nov. 2020, www.abc.net.au/news/2020-11-22/rollercoaster-2020-australias-economy-showing-signs-recovery/12905820.

¹⁹⁰ Koukoulas, Stephen. "6 Promising Signs the Worst Is over for Australia's Economy." *Yahoo Finance*, Verizon Media, 12 Nov. 2020, www.au.finance.yahoo.com/news/positive-economic-indicators-193645276.html.

¹⁹¹ Mehta, Dhvani. "Australia: Economic Recovery 'Faster and Stronger' than Expected - CBA." *FXStreet*, FX Street, 16 Nov. 2020, www.fxstreet.com/news/australia-economic-recovery-faster-and-stronger-than-expected-cba-202011160615.

¹⁹² Bembrick, Peter. "A Brief Overview of Australia's Economic Response to COVID-19." *HLB*, HLB International, 12 Mar. 2020, www.hlb.global/a-brief-overview-of-australias-economic-response-to-covid-19/.

government guarantees up to 50% to SME lenders to encourage them to provide credit. Australia also applied tax-free cashflow and lowered the cash rate target to 0.1%, which helped businesses and industries rely on trade¹⁹³. Second, Australia applied a unique JobKeeper and JobMaker Hiring credit program. The JobKeeper program helps businesses impacted by COVID pay employees' a biweekly payment of \$1500. The JobMaker program financially incentivizes businesses to hire additional adults aged 16-35¹⁹⁴. Finally, Australia spends over \$14 billion to improve its infrastructural capabilities to combat COVID and other viral diseases in the future. The money spent on infrastructure improvement is going to provide 40,000 jobs in the next four years¹⁹⁵.

In summary, Australia's economic plan focused on lowering the interest rate, increasing employment, and incentivizing businesses. While it is tough to predict the future, it seems that Australia's fiscal and monetary support has paid off. Australia's October jobs surpassed the economists' forecast, which predicted 8% unemployment when 7.2%¹⁹⁶. It is still left to see if Australia's long-term economic plan will help the economy revive further in 2021 like economists predicted¹⁹⁷.

New Zealand: Despite having one of the longest lockdowns globally, followed by 12.2% GDP contraction in the second quarter, New Zealand ranked first in the Doing Business Report published by the World Bank¹⁹⁸. A 2020 Bloomberg survey of 700 global business leaders found that, on average,

¹⁹³ "Supporting the Economy and Financial System in Response to COVID-19." RBA, Reserve Bank of Australia, 2020, www.rba.gov.au/covid-19/.

¹⁹⁴ "Supporting Australians through the Crisis." *Budget 2020-21*, Government of Australia, 2020, www.budget.gov.au/2020-21/content/covid-19.htm

¹⁹⁵ "Australian Government's Economic Response to Coronavirus." *H&R Block*, H&R Block Australia National Office, 2020, www.hrblock.com.au/tax-academy/australian-governments-economic-response-to-coronavirus.

¹⁹⁶ "Australia's October Jobs Surpass Forecast, Unemployment Ticks Up." *CNBC*, CNBC LLC, 18 Nov. 2020, www.cnbc.com/2020/11/19/australias-october-employment-soars-jobless-rate-ticks-up-.html.

¹⁹⁷ Bembrick, Peter. "A Brief Overview of Australia's Economic Response to COVID-19." *HLB*, HLB International, 12 Mar. 2020, www.hlb.global/a-brief-overview-of-australias-economic-response-to-covid-19/.

¹⁹⁸ "Foreign Direct Investment (FDI) in New Zealand." *Nordea*, Nordea, 2020, www.nordeatrade.com/en/explore-new-market/new-zealand/investment.

they feel the most confident in investing in New Zealand¹⁹⁹. Business leaders gave the score based on political stability, economic recovery, virus control, and social resilience²⁰⁰. Economist analysts expect New Zealand to witness a GDP increase of 5.9% in 2021²⁰¹. Multiple reasons could explain how New Zealand excelled in enhancing its economic resilience post-COVID:

First, and perhaps most impactful, the New Zealand government aimed to eliminate COVID instead of cushioning its blow. Backer, Kvalsvig, and Verrall argue that New Zealand's successful elimination strategy provided them with a medium-term exit path that can help businesses operate without COVID-19 constraints²⁰². Their argument mentions how the New Zealand elimination strategy might have been more taxing socially and economically in the short term than the alternatives (suppression and mitigation). However, the alternatives could be far more harmful to the economy in the long run because of the need to continuously apply restrictive measures until a vaccine is available. The New Zealand elimination strategy's most significant advantage is that it reduced market uncertainty by completely controlling the flow of COVID in the country.

Second, New Zealand offered a \$9-12 billion economic response package to revive the economy post-COVID. The economic package offers wage subsidies, leave and social isolation support, reemployment packages, and tax reliefs. New Zealand put a particular emphasis on SMEs. Almost half the economic package (\$6.25 billion) was dedicated to the Business Finance Guarantee scheme for small and medium-sized businesses. Further support to SMEs includes a \$3.1 billion tax loss carry-back scheme, flexibility in tax obligation, and

¹⁹⁹ Smyth, Jamie. "New Zealand Inc Reaps Benefit of Hard and Fast Covid Lockdown." *Financial Times*, The Financial Times LTD, 6 Nov. 2020, www.ft.com/content/912d28d1-b233-4e18-9af4-7fa84ea3b927.

²⁰⁰ Pullar-Strecker, Tom. "Bloomberg Business Survey Puts NZ's Covid Response out in Front." *Stuff*, Stuff Limited, 8 Oct. 2020, www.stuff.co.nz/business/123019858/bloomberg-business-survey-puts-nzs-covid-response-out-in-front.

²⁰¹ "Foreign Direct Investment (FDI) in New Zealand." *Nordea*, Nordea, 2020, www.nordeatrade.com/en/explore-new-market/new-zealand/investment.

²⁰² Baker, Michael G et al. "New Zealand's COVID-19 elimination strategy." *The Medical journal of Australia*, 10.5694/mja2.50735. 13 Aug. 2020, doi:10.5694/mja2.50735

consultancy support. The economic package's other benefits include renter and landlord protection, six-month mortgage principal, interest payment deferral, and better allocation for infrastructural and resource management²⁰³.

Third, New Zealand created The Trade Recovery Strategy to enrich its trade and recover from the impact of COVID-19. Trade is an essential component of the New Zealand economy, with one of four New Zealander jobs being dependent on exports²⁰⁴. The Trade Recovery Strategy comes in two phases. The first phase was from March to July, when the pandemic was at its peak in New Zealand. In the first phase, the focus was on protecting the supply chain and trade flow, in addition to ensuring that New Zealanders can access essential goods and PPE. In the second phase, New Zealand aims to adjust its global positioning and global trade strategies in a new international environment. New Zealand's global trade strategy has three pillars: Retooling support for exporters, reinvigorating international trade architecture; and refreshing key trade relationships. New Zealand also intensified the Ministry of Foreign Affairs and Trade Economic Diplomacy program to support exporters and SMEs facing trade barriers²⁰⁵. Besides, New Zealand and other APEC countries signed a commitment to stabilize food exporters' trading environment²⁰⁶. Furthermore, New Zealand provided improved exporter tools, such as improving the trade barrier portal, providing international market updates, air freight support, webinars, trade shows, and events²⁰⁷.

Fourth, New Zealand coordinated with International Organizations to ensure better global positioning. According to

²⁰³ " COVID-19: Economic Response Package ." *Beehive*, New Zealand Government, 15 Apr. 2020, www.beehive.govt.nz/feature/covid-19-economic-response-package.

²⁰⁴ "NZ Trade Policy." *New Zealand Foreign Affairs and Trade*, New Zealand Government, www.mfat.govt.nz/en/trade/nz-trade-policy/.

²⁰⁵ "Trade Recovery Strategy." *New Zealand Foreign Affairs and Trade*, New Zealand Government, 8 June 2020, www.mfat.govt.nz/en/trade/trade-recovery-strategy/trade-recovery-strategy-overview/.

²⁰⁶ " COVID-19: Economic Response Package ." *Beehive*, New Zealand Government, 15 Apr. 2020, www.beehive.govt.nz/feature/covid-19-economic-response-package.

²⁰⁷ "COVID-19 and Trade." *New Zealand Foreign Affairs and Trade*, New Zealand Government, 2020, www.mfat.govt.nz/en/trade/covid-19-and-trade/.

their trade recovery strategy²⁰⁸, New Zealand believes that multilateral and plurilateral trade systems are the best method to increase international investors' confidence. New Zealand joined the new World Trade Organization Multiparty Interim Arbitration Arrangement, which enforces international trade among its members. New Zealand also kept having Free Trade Agreement and Regional Comprehensive Economic Partnership (RCEP) virtually with the EU to indicate that New Zealand is still open for businesses. New Zealand also is working with APEC to build global consensus and improve trade. Finally, New Zealand established multiple Concerted open plurilateral agreements that are open to other partners to join. Examples of open plurilateral agreements include The Digital Economy Partnership Agreement (DEPA) and the Agreement on Climate Change, Trade, and Sustainability (ACCTS).

In summary, multiple reasons could explain why investors felt the most confident in the New Zealand economy. A reason could be that New Zealand aimed to eliminate the virus instead of cushioning the blow. Another is that New Zealand offered a comprehensive economic plan that includes fiscal and monetary policies that helped the economy show recovery signs. Finally, New Zealand emphasized reviving global trade by establishing Trade Recovery Strategy and coordinating with international organizations such as WTO, Free Trade Agreement, and APEC.

H. Utilization of digital infrastructural capabilities.

According to the New South Whale's government, Digital infrastructure is the technology, equipment, and systems that connect people and communities with data, products, and services²⁰⁹. Every country's or region's economic, health, social, and technological advancement is unique. A successful response to COVID requires countries or regions to understand their position, apply digital infrastructure to utilize their strength, and cope with their weaknesses. Common themes among

²⁰⁸ "Trade Recovery Strategy." *New Zealand Foreign Affairs and Trade*, New Zealand Government, 8 June 2020, www.mfat.govt.nz/en/trade/trade-recovery-strategy/trade-recovery-strategy-overview/.

²⁰⁹ "Public Digital Infrastructure ." *NSW Government*, State of New South Wales , 29 July 2020, www.digital.nsw.gov.au/transformation/public-digital-infrastructure.

selected countries or regions are using existing technological infrastructure and continuous improvement to their digital infrastructural capabilities during the COVID pandemic. The following section examines how the COVID response from their governments was targeted and resourceful.

South Korea provides some excellent examples of utilizing existing technology and space. Professor Larry Backer mentions in an article on automated Law and COVID-19 how South Korea utilized transaction tracking and mobile phone data to achieve an aggressive testing program²¹⁰. Transaction and phone tracking work in South Korea more effectively than other countries because South Korea has the highest cashless transaction rate and one of the highest phone ownership rates. South Korea continues to improve its digital infrastructure. “We plan to focus our investment on building digital infrastructure, including the Data Dam project,” Deputy Prime Minister and Finance Minister Hong Nam-Ki said. Data Dam project of 2025 aims to collect public and private information and integrate them using the 5G network and AI technology to fuel growth. The name “Data-Dam” is derived from Hoover Dam, which helped the US overcome the great depression²¹¹. Data-Dam project is expected to help improve the economy, education, farming, and medicine in 2025²¹². Overall, Artificial intelligence in South Korea helped them analyze data, monitor people in quarantine, watch over the lonely elders, and help the government make resourceful decisions during COVID-19²¹³. More information on how South Korea's digital data management helped them respond to COVID could be found in the “South Korea Contact Tracing” section of this paper.

²¹⁰ Backer, Larry. “ Automated Law and COVID-19: Data Driven Measures With National Characteristics In China and Israel and the Future of the Law-Governance Complex .” *Law at the End of the Day*, 24 Mar. 2020, www.lcbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html.

²¹¹ Min-kyung, Jung. “S. Korea to Focus on Digital Infrastructure Investment, ‘Data Dam’ Project: Minister.” *The Korea Herald*, Herald Corporation, 11 Sept. 2020, www.koreaherald.com/view.php?ud=20200911000726.

²¹² <http://koreabizwire.com/s-korea-kicks-off-data-dam-project-to-fuel-growth-create-jobs-govt/168319>

²¹³ Zhang, Frank. “South Korea Has Digital Infrastructure in Place to Deal with COVID-19.” *Healthcare IT Review*, 18 Sept. 2020, www.healthcareitnews.com/video/emea/south-korea-has-digital-infrastructure-place-deal-covid-19.

Ezekiel Emanuel and others from the University of Pennsylvania share four ways Taiwan's digital infrastructure response was unique²¹⁴. First, the Taiwan contact tracing system effectively registered all Taiwanese citizens using their unique medical id and online record. This factor alone helped register all people with pre-existing conditions. Second, when COVID hit, the Taiwanese government merged the health records with the immigration and customs database, improving accuracy and identifying high-risk people. Third, Ezekiel Emanuel's team analysis found that among 11 countries, no other country besides Taiwan had an effective real-time health record system²¹⁵. Taiwanese health record management system and AI is more advanced and faster than most other countries. Fourth, Taiwan's rapid response and ability to track risk in real-time helped people become more cooperative and less distasteful to the idea of constant monitoring. In this case, Taiwan applied unique solutions that no one but Taiwan can do. Taiwan used its technological capabilities to effectively predict real-time cases, which helped it gain public trust and cooperation.

Canada also used existing digital health infrastructure to respond better to COVID. Canada prioritized “virtual care first” during the pandemic. Clinics were provided with virtual solutions that can help them work remotely. The online solutions go beyond being a platform to include guides, instructions, and resources to help clinics move to virtual care²¹⁶. Canada also is working on improving its existing digital health infrastructure. National Research Council Canada announced a project with the Centre for Addiction and Mental Health (CAMH) that seeks to provide 24/7 mental health counseling for those affected by being isolated by COVID. The app should have a prototype in early 2021 and uses gaming technology to add more realism to virtual mental health counseling. The app should help those who suffered from

²¹⁴ Emanuel, Ezekiel, et al. “Learning from Taiwan about Responding to Covid-19 — and Using Electronic Health Records.” *STAT News*, STAT, 30 June 2020, www.statnews.com/2020/06/30/taiwan-lessons-fighting-covid-19-using-electronic-health-records/.

²¹⁵ Emanuel, Ezekiel, et al. “Learning from Taiwan about Responding to Covid-19 — and Using Electronic Health Records.” *STAT News*, STAT, 30 June 2020, www.statnews.com/2020/06/30/taiwan-lessons-fighting-covid-19-using-electronic-health-records/.

²¹⁶ “Virtual Care Resources During COVID-19.” *Canada Health Infoway*, www.infoway-inforoute.ca/en/resource-centre/virtual-care.

loneliness or isolation due to COVID. Another project Canada National Research Council entered the testing phase in October 2020 is a one that uses contactless technology for better virtual care. Contactless technology uses sensors or cameras to identify a patient's temperature, heart rate, oxygen levels, and respiratory rate ²¹⁷. Canada's investment in digital health infrastructure is making Canada stronger against viral diseases in the future.

Australia and New Zealand also showed multiple examples of adapting and improving digital health infrastructural capabilities in multiple ways. First, Australia and New Zealand utilized existing traveling data to make better border control and management decisions. Second, both countries used Mathematical and theoretical modeling to predict COVID cases and achieve better contact tracing. Third, both New Zealand and Australia emphasized digital health and virtual care to decrease the pressure on HCWs. Finally, both Australia and New Zealand showed commitment to improving their digital health infrastructure.

In Australia, the government announced that they would allocate \$796.5 million for "Digital Business Plan in their next four-year business plan." The Digital Business Plan includes four categories: The establishment of modern digital infrastructure, the reduction of digital regulatory barriers, the introduction of enterprise support for SMEs, and a more efficient electronic way to deal with the government ²¹⁸. Australia followed this announcement with another program, "Be Connected Program," to help Australians over 50 participate in the digital economy. To reduce trade barriers, Australia spent \$11 million on the "Regtech Commercialization Initiative" to simplify the digital regulatory compliance and make it easier for SMEs to transfer online²¹⁹.

²¹⁷ "COVID-19 Response: Digital Health and Analytics." *Government of Canada*, Canada, 2020, www.nrc.canada.ca/en/covid-19-response-digital-health-analytics

²¹⁸ Flammang, Eric. "Federal Budget 2020-21 & The Digital Economy." *William Buck*, William Buck, 24 Nov. 2020, www.williambuck.com/federal-budget-2020-21-the-digital-economy/.

²¹⁹ Flammang, Eric. "Federal Budget 2020-21 & The Digital Economy." *William Buck*, William Buck, 24 Nov. 2020, www.williambuck.com/federal-budget-2020-21-the-digital-economy/.

In New Zealand, a recent International Data Corporation report²²⁰ showed that 28% of CEOs find that building a stable technological infrastructure for their company is their number one priority. Of the same respondents, 38% think they will generate 38% of their revenue from digitally-enabled products and services. New Zealand does realize the potential of improved digital infrastructure. The technology sector in New Zealand is the third largest sector is the third-largest exporter, and has the fastest growth rate²²¹. New Zealand also has the second-fastest fiber subscription growth rate in OECD²²². New Zealanders can run their businesses anywhere, even in rural towns. Another digital infrastructure achievement in New Zealand is the first fully online passport renewal service. New Zealand continues to improve virtual government services to reduce the load on governmental facilities. According to Divina ²²³, New Zealand developed the Data Investment Framework (DIF) for a more efficient and consolidated approach to data infrastructure investments. DIF made it easier for New Zealanders to find information on one government page.

Overall, the digital infrastructure investment helped combat COVID in multiple ways: it improved the accuracy and efficiency of contact tracing. It also provided online services that lowered the pressure on HCWs and government facilities. Moreover, digital infrastructure helped governments manage data and use them in much more efficient ways. Finally, digital infrastructure helped ease trade barriers and enabled international investments, especially for SMEs.

²²⁰ Wingrove , Gary. "Australian CEOs Are Reorganising Their Priorities." *KPMG*, KPMG International Limited, 2020, home.kpmg/au/en/home/insights/2020/09/global-ceo-outlook-2020.html.

²²¹ Morgan, Sarah. " Technology Is Now New Zealand's Third Largest Export Sector ." *NZ Story*, New Zealand Story , 20 May 2019, www.nzstory.govt.nz/news/technology-is-now-new-zealands-third-largest-export-sector/.

²²² Paredes, Divina. "NZ Fast Becoming the Land of Digital Opportunities: IDC." *CIO*, IDG Communications, Inc., 10 Oct. 2020, www.cio.com/article/3508398/nz-fast-becoming-the-land-of-digital-opportunities-idc.html.

²²³ Paredes, Divina. "NZ Fast Becoming the Land of Digital Opportunities: IDC." *CIO*, IDG Communications, Inc., 10 Oct. 2020, www.cio.com/article/3508398/nz-fast-becoming-the-land-of-digital-opportunities-idc.html.

6. Recommended Policies.

This section of the paper will provide policies that could help countries or regions suffering from a viral outbreak. Those policies will be based on the national or regional experiences and strategies examined in this article. The recommendations will be written in bullet points, followed by a brief explanation, reasons for selection, and other implementation concerns.

A. Length of the Response.

Before discussing the recommended policies, it is essential to discuss how long an excellent response to COVID takes:

Short Term: With cases surging to up to a thousand confirmed infections daily in the US, the incoming Biden Administration began debating whether they should apply another short-term lockdown²²⁴. Based on this analysis, there is no short-term solution for COVID. Biden COVID-19 advisor says U.S. lockdown of 4 to 6 weeks could control pandemic and revive the economy²²⁵. Unless the Biden Administration can apply a vaccination program that can completely eradicate COVID in the short term, it is highly advised that the Biden administration consider **medium-term solutions**.

Recent research by the University of Minnesota revealed that short-term lockdown might do more harm than good and could lead to devastating spikes²²⁶. This paper provides two examples to support the need for medium-term lockdown

²²⁴ Jaffe , Alexandra. " Biden Faces Challenging Choice: Back a Short-Term National Lockdown or Not." *Chicago SunTimes*, Chicago Sun*Times, 14 Nov. 2020, www.chicago.suntimes.com/coronavirus/2020/11/14/21565274/biden-faces-challenging-choice-back-a-short-term-national-lockdown-or-not.

²²⁵ Feuer, Will. "Biden Covid Advisor Says U.S. Lockdown of 4 to 6 Weeks Could Control Pandemic and Revive Economy." *CNBC*, CNBC LLC, 11 Nov. 2020, www.cnbc.com/2020/11/11/biden-covid-advisor-says-us-lockdown-of-4-to-6-weeks-could-control-pandemic-and-revive-economy.html.

²²⁶ Osterholm , Michael, and Mark Olshaker. "Facing Covid-19 Reality: A National Lockdown Is No Cure." *The Washington Post*, The Washington Post, 31 Mar. 2020, www.washingtonpost.com/opinions/2020/03/21/facing-covid-19-reality-national-lockdown-is-no-cure/.

instead of a short term one. The first example is New Zealand. New Zealand applied a comprehensive and strict 102 days lockdown, one of the longest lockdowns globally²²⁷. After the lockdown was over, New Zealand still found it necessary to increase Auckland's lockdown to 12 more days²²⁸. In order to eliminate COVID, New Zealand had to apply a total of 114 days lockdown. During the lockdown, the New Zealand government applied a robust contact tracing system and required businesses to have QR codes at their doors²²⁹. Another example from this paper is Australia. Australia had to apply almost a 3-month total lockdown to fight COVID. After the lockdown was over, cases in the State of Victoria (Melbourne) began to increase. Australia had to apply a total of 111 days of lockdown to have better control over the virus²³⁰. It is also important to note that the US population is much bigger than New Zealand and Australia. The US also uses a federalism system, making applying a short-term solution to COVID uniformly even more impossible²³¹.

Another thing to note is that both New Zealand and Australia experienced a GDP contraction in the first and second quarters of 2020, Australia by 7% and New Zealand by 12.2%²³². Lockdowns could hinder economic growth in the short run. Despite its short-term economic impact, a medium-term solution is still much better in the long run than a short-term solution. After 114 days, New Zealand announced that they

²²⁷ "Coronavirus: New Zealand Locks down Auckland after Cases End 102-Day Run." *BBC News*, BBC, 12 Aug. 2020, www.bbc.com/news/world-asia-53741091.

²²⁸ Hollingsworth, Julia. "New Zealand Imposes 12-Day Lockdown in Its Biggest City as It Battles Fresh Outbreak." *CNN*, Cable News Network, 14 Aug. 2020, www.cnn.com/2020/08/14/asia/new-zealand-coronavirus-lockdown-intl-hnk/index.html.

²²⁹ "Guidelines for Businesses and Services." *NZ Ministry of Health*, New Zealand Government, 2020, www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-information-specific-audiences/guidelines-businesses-and-services.

²³⁰ Oxer, Reese. "'None Of This Has Been Easy': Melbourne, Australia, Ends Its 111-Day Lockdown." *NPR*, NPR, 28 Oct. 2020, www.npr.org/2020/10/28/928793228/none-of-this-has-been-easy-melbourne-australia-ends-its-111-day-lockdown.

²³¹ Osterholm, Michael, and Neel Kashkari. "Here's How to Crush the Virus Until Vaccines Arrive." *The NY Times*, The New York Times Company, 7 Aug. 2020, www.nytimes.com/2020/08/07/opinion/coronavirus-lockdown-unemployment-death.html.

²³² "Foreign Direct Investment (FDI) in New Zealand." *Nordea*, Nordea, 2020, www.nordeatrade.com/en/explore-new-market/new-zealand/investment.

eliminated COVID. New Zealand's medium-term strategy paid back in the long run. According to the Doing Business Report by The World Bank, New Zealand's strategy helped them eliminate COVID, which made them the most attractive place to invest in 2020. In summary, it is highly advised for states and regions suffering from COVID to consider medium- and long-term solutions because short-term lockdowns might be devastating.

Long Term: Taiwan and South Korea are great examples of successful long-term responses to COVID. Taiwan and South Korea were hit hard by SARS²³³ or MERS²³⁴, creating long-term solutions that helped them combat the current pandemic. Taiwan and South Korea continued improving their pandemic response protocols and digital infrastructure. Taiwan and South Korea are tough to imitate in the short term because it took both governments years of trial and error to achieve comprehensive responses. Both South Korea and Taiwan emphasized building AI-enhanced technology to improve digital tracking, data management, and contact tracing²³⁵. Both governments also applied early and comprehensive economic, social, and health responses that were already planned based on lessons learned from MERS and SARS. For example, both governments provided PPE to HCWs at the early stage of the pandemic because they cut exports to reach self-sufficiency²³⁶. Another example is the culture of mask-wearing, where people in South Korea and Taiwan began wearing masks in public as early as January²³⁷. Overall, states and regions post-COVID need to emphasize

²³³ Lee, Wui-Chiang. "Taiwan's experience in pandemic control: Drawing the right lessons from SARS outbreak," *Journal of the Chinese Medical Association*: July 2020 - Volume 83 - Issue 7 - p 622-623 doi: 10.1097/JCMA.0000000000000350

²³⁴ Ariadne Labs. "Emerging COVID-19 Success Story: South Korea Learned the Lessons of MERS." *Our World in Data*, University of Oxford, 30 June 2020, www.ourworldindata.org/covid-exemplar-south-korea.

²³⁵ Matt, Ratchel. "Contact Tracing With Your Phone: It's Easier but There Are Tradeoffs." *The NY Times*, The New York Times Company, 3 June 2020, www.nytimes.com/2020/06/03/health/coronavirus-contact-tracing-apps.html.

²³⁶ Lee, Hakyung. "South Korea Takes New Measures to Have Enough Face Masks Domestically amid Coronavirus." *ABC*, ABC News, 27 Feb. 2020, www.abcnews.go.com/International/south-korea-takes-measures-face-masks-domestically-amid/story?id=69254114.

²³⁷ Yip, Hilton. "Fear of China Made Taiwan a Coronavirus Success Story." *Foreign Policy*, The Slate Group, 16 Mar. 2020, foreignpolicy.com/2020/03/16/taiwan-china-fear-coronavirus-success/.

building their digital health infrastructure in the long term and raising awareness of personal health and hygiene.

B. Health Category: Contact Tracing

1. It is highly advised for a country suffering from COVID-19 to apply the New Zealand contact tracing strategy in the short term. NZ contact tracing app uses Q.R technology, which has proven to be more useful, accurate, and efficient than Bluetooth technology²³⁸. Having Q.R codes at businesses' doors is essential for this contact tracing system to work. The only downside of the NZ contact tracing app is that it requires constant user interference.

2. There must be a strong emphasis on data security and protecting people's privacy to increase the participation rate.

3. While reaching a 60% adoption rate among the population could be great, it is not necessary. An Adoption rate from 20% to 56% can significantly slow down the pandemic spread²³⁹. Instead, policymakers should focus on nudging people to use the contact tracing app through incentives, advertisements, and by raising awareness on how the app could help save lives.

4. In the long term, a better solution would be enhancing digital infrastructure and utilizing AI for even more accurate and efficient data management. States and regions like South Korea and Taiwan used border data, health records, GPS, and cashless payments to understand the virus spread and detect it²⁴⁰. Unfortunately, having a complex digital system capable of

²³⁸ Matt, Ratchel. "Contact Tracing With Your Phone: It's Easier but There Are Tradeoffs." *The NY Times*, The New York Times Company, 3 June 2020, www.nytimes.com/2020/06/03/health/coronavirus-contact-tracing-apps.html.

²³⁹ "Digital Contact Tracing Can Slow or Even Stop Coronavirus Transmission and Ease Us out of Lockdown." *University of Oxford*, University of Oxford, 16 Apr. 2020, www.research.ox.ac.uk/Article/2020-04-16-digital-contact-tracing-can-slow-or-even-stop-coronavirus-transmission-and-ease-us-out-of-lockdown.

²⁴⁰ Backer, Larry. "Automated Law and COVID-19: Data-Driven Measures With National Characteristics In China and Israel and the Future of the Law-Governance Complex." *Law at the End of the Day*, March 24th. 2020, lbackerblog.blogspot.com/2020/03/automated-law-and-covid-19-data-driven.html.

heavy data management is not an easy task, and it requires years of preparation and implementation.

5. Cybersecurity must be an integral part of the contact tracing app, especially in countries or regions that made the app optional. Enhancing app security could increase public trust in the application.

C. Protecting Healthcare Workers

Frontline HCWs are vital for a successful COVID response. Some of the notable strategies implemented to help HCWs include:

1. Apply a risk stratification system where people with fewer symptoms or asymptomatic are sent to care centers instead of emergency centers²⁴¹. The mobilization of medical resources helped the selected countries respond better to COVID.

2. Taiwan applied two interesting (and relatively feasible) solutions to enhance the protection of Health care workers. The first is that every hospital is given a stock card to fill to prevent a PPE shortage. The second one divides HCWs and hospital staff into groups, preventing those groups from rotating shifts and wards for at least a month²⁴². By doing so, hospitals can reduce the likelihood of an all-out hospital outbreak.

3. Standardized and strict cleaning measures, in addition to testing, monitoring, and quarantining HCWs when necessary.

4. States like Canada provided easy-to-access online guidelines for HCWs on how to prevent COVID spread. Canada also provided Public health ethics framework to help HCWs

²⁴¹ "Ariadne Labs Releases Report Detailing How South Korea Is Protecting Health Care Workers During COVID-19." *Ariadne Labs*, Harvard T. H. Chan School of Public Health, 12 May 2020, www.ariadnelabs.org/resources/articles/news/ariadne-labs-releases-report-detailing-how-south-korea-is-protecting-health-care-workers-during-covid-19/.

²⁴² Chang, Man-Na, et al. "Intra-Hospital Preventive Principles to Protect Frontline Healthcare Workers to Overcome Pandemic COVID-19 in Taiwan." *BMC, Springer Nature America*, 11 June 2020, www.ccforum.biomedcentral.com/articles/10.1186/s13054-020-02983-7

analyze and weight situations and options during stressful situations²⁴³.

5. Improve the accessibility and interference of virtual care, then nudge people to use it.

6. Provide mental health resources and guidance for frontline workers.

D. Empowering the Voice of Science and Reason.

1. States and regions chosen in this particle sought to make sure that their responses are based on scientific research and data; it is imperative to prioritize scientists' opinions during a pandemic.

2. Provide a public physical and online platform for scientists to cast their opinions, recommendations, and concerns during the pandemic.

3. Include scientists in policymaking and ensure that their efforts are being recognized and endorsed nationally.

E. Aggressive Testing and Mask-Wearing.

1. According to the CDC, a mask can protect the wearer and those around them from COVID²⁴⁴. States and regions with successful experiences against COVID promoted mask-wearing or mandated it early in the pandemic.

2. If mask-wearing cannot be mandated, it is highly recommended to nudge people to wear a mask through advertising, promotions, and raising awareness.

²⁴³ COVID-19 Pandemic Guidance for the Health Care Sector." *Government of Canada*, Canada, www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/covid-19-pandemic-guidance-health-care-sector.html.

²⁴⁴ Mascarenhas, Lauren. "CDC Now Says Masks Protect Both the Wearers and Those around Them from Covid-19." *CNN Health*, Cable News Network, 10 Nov. 2020, www.cnn.com/2020/11/10/health/masks-cdc-updated-guidance/index.html.

3. Aggressive testing helped the countries selected in this paper respond early and proactively to COVID. Improved testing capabilities were achieved by collaborating with private local media companies early in the pandemic.

F. Government Effectiveness; Centralization of decision making

1. Unify health scientists' voices under one umbrella, improving the government message's coherence, clarity, and speed.

2. Consider easing the check and balance principle during COVID and applying a system of executive federalism. Executive federalism in Australia helped them improved their response speed and efficiency. It also allowed scientists, minorities, and the indigenous population to voice their concerns and respond to the pandemic as efficiently as bigger states²⁴⁵.

G. Transparent and Clear Communication

1. Transparency must extend to the communication of failures, uncertainty, and errors.

2. Apply daily briefings and extend the pandemic response communication to digital forms and social media.

3. Provide the public with a physical and online platform to cast their concerns in the government pandemic response, then address these concerns in the daily briefings. Engaging citizens in the conversation could increase their trust and awareness.

²⁴⁵ Menzies , Jennifer. " Explainer: What Is the National Cabinet and Is It Democratic?" *The Conversation*, The Conversation US, Inc, 30 Mar. 2020, www.theconversation.com/explainer-what-is-the-national-cabinet-and-is-it-democratic-135036.

4. Provide comprehensive economic and social response plans, then ensure constant monitoring and evaluation of the plans.

5. Follow Transparency International and other NGOs' guidance on how to improve transparency and prevent corruption during COVID²⁴⁶.

H. International Coordination with the WHO

1. Follow the WHO health guidance on how to respond to COVID. The WHO successfully eradicated viruses like small pox and Rinderpest virus²⁴⁷. Global international coordination and listening to scientists are shared among the countries that responded well to COVID.

I. Economy—Economic and Social support legislations & Policies

1. A solution to enrich the economy during a pandemic is to avoid lockdown. South Korea and Taiwan were able to maintain a low infection rates despite not having lockdowns²⁴⁸. However, those two places also applied a contact tracing system that utilized digital infrastructure capabilities that they only possess. Therefore, it is challenging for any country or region to imitate the South Korean and Taiwanese economic response models quickly.

2. Design a comprehensive economic plan that includes fiscal and monetary support to help those impacted by COVID the most.

3. Reduce global and virtual trade barriers on local businesses and SMEs.

²⁴⁶ "Transparency International." *Transparency International*, Transparency International, www.transparency.org/.

²⁴⁷ "Disease Eradication." *The History of Vaccine*, The College of Physicians in Philadelphia, 2018, www.historyofvaccines.org/content/articles/disease-eradication.

²⁴⁸ Sui, Cindy. "In Taiwan, the Coronavirus Pandemic Is Playing out Very Differently. What Does Life without a Lockdown Look like?" *NBC News*, NBC UNIVERSAL, 23 Apr. 2020, www.nbcnews.com/news/world/taiwanese-authorities-stay-vigilant-virus-crisis-eases-n1188781.

4. South Korea used a unique digital currency to help local businesses and ensure that the fiscal stimulus would not be hoarded.

5. Canada created a social safety net in the employment force and health care sectors. This made citizens less stressed about losing healthcare or jobs and more likely to stay home and follow scientists' guidelines.²⁴⁹

6. Australia applied for JobMaker and JobKeeper programs. JobKeeper helped businesses impacted by COVID, especially SMEs, pay employee salaries. JobMaker incentives businesses to hire adults aged 16-35²⁵⁰.

7. To incentivize global investors, New Zealand applied multilateral and plurilateral trade systems and coordinated with international organizations²⁵¹. As a result, New Zealand is the most favorable country to invest in, according to a Bloomberg survey of 700 global business leaders²⁵².

J. Utilization of digital infrastructural capabilities

1. Heavily invest in digital infrastructure because it will attract FDI and help create a better data management system that is more efficient and accurate.

7. Conclusion

This comparative analysis found that Australia, Canada, New Zealand, Taiwan, and South Korea responses to COVID required a set of health, political, and economic strategies. In

²⁴⁹ Olives, David. "The Numbers Don't Lie: Why the Canadian Economy Is Already in Much Better Shape than It Looks." *The Star*, Toronto Star Newspapers Ltd, 19 June 2020, www.thestar.com/business/opinion/2020/06/20/from-employment-to-deficits-heres-where-the-economy-stands-and-where-were-headed.html.

²⁵⁰ "Supporting Australians through the Crisis." *Budget 2020-21*, Government of Australia, 2020, www.budget.gov.au/2020-21/content/covid-19.htm

²⁵¹ "Trade Recovery Strategy." *New Zealand Foreign Affairs and Trade*, New Zealand Government, 8 June 2020, www.mfat.govt.nz/en/trade/trade-recovery-strategy/trade-recovery-strategy-overview/.

²⁵² Pullar-Strecker, Tom. "Bloomberg Business Survey Puts NZ's Covid Response out in Front." *Stuff*, Stuff Limited, 8 Oct. 2020, www.stuff.co.nz/business/123019858/bloomberg-business-survey-puts-nzs-covid-response-out-in-front

health, contact tracing, healthcare workers' protection, endorsement of scientists, aggressive testing, and mask-wearing were shared among the selected countries. In government effectiveness, common themes included centralization of Decision-Making, transparency, international coordination with the World Health Organization. Finally, this analysis's chosen countries had comprehensive economic and social support plans that utilized or invested in digital infrastructure during the crisis.

The examination came with its fair share of challenges. A big challenge was choosing appropriate states and regions. The second was the fluidity of the global situation caused by the pandemic itself and the responses that followed. Therefore, it could be argued that this effort focused more on the short-term initial responses than the long-term impact these responses had. An area of improvement to the research would be to use annual assessments from the UN, the WTO, and the WHO to make a long-term comparative analysis to best responses to COVID. Understanding the long-term economic, social, and mental impact of COVID-19 takes more than an initial six month-period response. Another task for policymakers would be transposing the article's recommendation to local context, and adjusting to local capabilities. Imitating the experience of another state or region without recognizing the difference in capabilities will decrease the effectiveness of the response. Nonetheless, the examination undertaken here suggests at least the broad parameters of what may work and what remains a challenge when a state or region faces pandemic.

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