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Introduction: Is Civilization Heading Towards a Collapse?

Civilization is a complex, fragile and vulnerable structure that ultimately depends on people's willingness to act in conformity with certain unwritten rules. This does not always filter through to the governing elite, the businesses and the people, all of whom take the cohesiveness of societies and responses to challenges for granted. Analyses of past civilizations disclose that civilizations succumbed to complacency, external changes such as climate factors, and internal strife, mainly about who governed and distributed the wealth.

Unfortunately, our civilization shows signs of all three of these elements. Complacency is widespread. The political leadership target short-term results, neglecting the long-term negative repercussions. This is combined with a worrying tendency among populations to take what has been achieved for granted. The unattractive fact that the outgoing generation has had to strive to get where they are has been put aside and replaced by a feeling that this is our right. External changes such as climate change and resource scarcities are well-known. But, despite a number of declarations and lip service, they fail to be transformed into policies. Internally, a growing gap between those who are rich and powerful and those who are not threatens to break up societies, mainly because the rich and powerful refuse to share what they have,

alienating the majority of people who feel they have no chance of upward social mobility.

The past three to four generations plus the one currently in charge crafted a social contract—how to shape and maintain social cohesiveness among people living in the same society. This entailed a reasonable degree of caring for others combined with empathy and understanding of inclusive growth. That kept us going for quite a long time.

The impact of human beings on nature, however, was neglected, with pollution and the loss of diversity being the consequences. It is possible that the twentieth century—should we manage to avoid wiping out our civilization—will be classified as the greatest robbery, in the sense that we plundered nature, disregarding other species and future generations. Perhaps a kinder label might be the century of egoism/selfishness.

Domestically, most industrialized countries moved towards some kind of welfare society, establishing policies to help people in need and introducing an often-complex system of taxation, reflecting progressive taxes to finance welfare. It was most obvious in Northern Europe, but not exclusive to that part of the world. President Eisenhower's expansion of social security in the 1950s reflected the same basic attitude. It bears little if any resemblance to what is seen today. President Roosevelt's new deal introduced in the 1930s and the British Beveridge Report from 1942 constituted a break with the past and steered societies towards cohesion and inclusive growth.

Internationally, decolonization, combined with the United Nations system, anchored in the rule of law. Institutions empowered to enforce a growing international world order sent the same message. The world moved—slowly, admittedly—towards global governance and a sense of sharing of wealth. Both domestically and internationally, various kinds of discrimination were rolled back, albeit they were still visible under the surface. These roses were not without their thorns, but the underlying trend was clear enough.

Over the last thirty years, this trend has given way to an egoistic behavioural pattern. And not only are the political systems unable to control these tremendous changes, but it looks increasingly like

the dysfunctionality of models, systems and policies designed during the industrial age will become the norm. Such changes are often described and analysed in a technological and economic framework displaying a technocratic point of view. This is to look at the problem through the wrong end of the microscope. Basically, it is about human nature. Or, to be more precise, it is about people's ability and willingness to adjust, adapt and tune into opportunities and problems brought to them by new technologies. The fundamental factor is how new technology interferes with interaction among human beings, bringing about a new behavioural pattern—a new ethics and moral yardstick.

Apparently we have learned very little from nature. When something new takes place in the natural world, ecosystems begin to adapt and adjust by themselves. This is not done by a prescript or command structure, but by inbuilt mechanisms in the ecosystem, which do not need to be told what to do.

1. Information and Communication Technology (ICT)

People love to communicate. Three major changes have influenced relations among human beings since the advent of the internet. First, initiating communication is no longer the privilege of the elite via newspapers, the radio or television; nowadays the large majority can do so via social networks. Second, communication has become global, doing away with the nation-state's monopoly of informing its citizens. Third, the speed of communication combined with the cascade effect gives overwhelming power to those able to catch the attention of other people. To this should be added that anybody can communicate with anybody else, anytime, anywhere about anything.

The door is open to a colossal amount of information, forcing an individual into a screen-out process, changing mindsets and strengthening bonds among like-minded people at the cost of implicitly and perhaps unintentionally skipping inconvenient information. In reality the consequence has been a narrowing mindset, crowding out tolerance and respect for other human beings and their views.

2. Biotechnology

For the first time in its existence, humanity possess the ability to tinker with life, making it now appropriate to ask two simple questions. The first is do we fully understand and appreciate what the long-term effects of such tinkering might be? Perhaps nature is like an iceberg, with only ten per cent showing above the water and the rest hidden beyond the capacity of the human brain. It is rather wishful thinking that nature will willingly surrender all its secret to mankind. The second question is what does it mean to be human when we can change life? Some decades ahead, parents will be able to pick the genetic traits of their child. If they do this, will it then still be their child?

Humanity is also moving towards making death reversible. In 2019 a team from the Yale School of Medicine performed an experiment entailing the partial revival of a pig's brain after decapitation. Pig's brains are not so different in their structure from human brains, so theoretically the same process should be possible with a human brain. The implications of this are mind boggling. Does it mean we can revive people classified as brain dead? And, if so, what does this mean for the limit drawn between life and death?¹

Possibly the biggest risk to humanity is the combination of genetic engineering and artificial intelligence in the hands of political systems pursuing the elusive but tempting goal of creating a new type of human being defined by political preference. Such an idea was an integral part of Nazism and Fascism, and it is present in communist ideology. It is wishful thinking—again—to expect that when such technologies become available they will not to be used by political ideologies.

As political systems may employ genetic engineering, the business sector may use it for food production. We already see to a frightening degree the narrowing of the types of plants, cereals and animals used to produce our food. This is because the kinds of animals—cows, for example—and cereals have not only been limited to those producing the most meat and milk but they have been genetically modified to deliver more. A potential catastrophic outbreak of a disease could take place as alternative species, those perhaps with a greater diversity of resistances, have been crowded out of the whole process. Will the food we eat in the near future come from “factories” instead of animals and plants?

It is no coincidence that the foundation of nature is diversity. The reason behind this is the logic of the ecosystem—a total system—where species support one another. Our political and economic perspective is fast destroying diversity. An increasing number of animal species are becoming extinct or are getting close to it. Attention has recently been called to how fast the numbers of insects have been falling.² According to a United Nations report, one million plants and animal species are on the verge of extinction, eroding “the foundations of our economies, livelihoods, food security, health and quality of life worldwide”.³

By moving towards a kind of monopolization of the globe and its resources for itself, humanity has been silently—but, strangely enough, knowingly—digging its own grave by destroying the diversity underpinning the ecosystem we depend on. It is an illusion to imagine that human life can continue with the current speed of destruction of other kinds of life.

The situation also reveals the unpleasant ethics that humanity believes we have the right to wipe out many forms of life that have been here much longer than us.

3. Pandemics

An epidemic, also in the shape of a pandemic, is not a new phenomenon. Plagues and epidemics have ravaged mankind for thousands of years. Like climate change, pandemics have frequently explained seminal political and economic change.

Archaeology reveals that the oldest known epidemic took place about five thousand years ago in a prehistoric village in China. Around 430 BC, an epidemic struck Athens at the height of a war with another Greek city state, Sparta. It is estimated that in the region of a hundred thousand people died, undermining the power of Athens and contributing to its defeat. In AD 165–180 the Roman Empire was hit by a plague that claimed about five million lives—historians believe this to be one of the reasons behind the decline of Rome as a great power.

The Black Death ravaged Europe between 1346 and 1356, killing about half of the population. This massive haemorrhage caused far-reaching societal changes, and it may have contributed to the end of serfdom. In the sixteenth century, about ninety per cent of the populations of

the Inca and Aztec empires perished when the Spanish conquerors brought along diseases unknown to them.

In the twentieth century, the pandemic known as the Spanish Flu killed around fifty million people worldwide. The main reason for its spread was the exhaustion and malnutrition as a result of World War I. In 1957–58, the Asian Flu caused the death of a million people.

The world has over the past half century become a smaller place in the sense that economic globalization has resulted in millions of people moving around through tourism and migration. The falling cost of air travel has meant they move fast, making it difficult for countries to protect themselves. Furthermore, it is costly for nation-states to erect barriers, as economic globalization makes them dependent on other nation-states. Disrupting the global supply chain is possible for a short time, but without changing the whole economic structure, it is not viable for the long run.

The challenge—already visible in Asia during the SARS epidemic (2002–4)—is to reconcile efforts to fight an epidemic whilst maintaining participation in economic globalization. Most of the nations affected by SARS were able to do this successfully, but one of the reasons for this was the limited number of cases and the fact of the disease being transmissible only when clear symptoms were exhibited—8,096 cases worldwide, resulting in 774 deaths—which made selective measures effective.

In recent decades scientists have discussed the likelihood of pandemics. The conclusion seems to be that the world will need to get used to pandemics in the future, without however giving much by way of specifics as to how often or how serious they will be. This makes it difficult to build adequate defences.

4. Climate Change and Water Shortage

One consequence of this narrow and egoistic behaviour is seen in climate change. The earth is a closed system. Emissions must be absorbed or they will accumulate somewhere. When more comes out of a factory chimney, it changes the existing balance in the global ecosystem, which reacts. Climate change is a counter-attack by nature. There may be others which we have not yet discerned.

Climate change is almost certain to trigger major upheavals as once fertile regions become less so and areas formerly unsuitable for agriculture suddenly become viable. And this is not to forget the studies that predict two billion people will be climate-change refugees by the year 2100 if ocean levels rise at the rate projected.⁴ The effect will be mass migration as people are forced to move for the simple reason that they cannot survive where they are. Populations situated in prosperous and fertile regions will defend themselves against the vast influx of foreigners. In short, climate change could be the catalyst for a global conflict for scarce resources, breaking down what might remain of the world order.

An estimated 800 million people live in more than 570 coastal cities vulnerable to a sea-level rise of 0.5 metres by 2050. The majority are in Asia, with China alone accounting for about 80 million of those living in areas slated to be affected.⁵ The following cities could end up underwater as sea levels rise: Jakarta, Bangkok, Lagos, Dhaka, Shanghai, London and Houston.⁶

According to the World Resources Institute,⁷ water is becoming so scarce in certain areas around the globe that a severe crisis is looming. Seventeen countries, home to almost a quarter of the global population, face extremely high levels of baseline water stress. Another twenty-six face high water stress. The Middle East and North Africa are the most water-stressed regions, but Southern Europe and Turkey, Northeast China, the Southwestern United States and parts of Mexico, and large parts of India will also be affected. Not surprisingly, the effects of climate change and water shortages will combine to make it difficult to cultivate the soil or to perform manufacturing, leading to deteriorating living conditions.

The combination of people being hit globally by climate change, water shortages or both is frightening, auguring billions of people without any prospects of living where they were born.

As is the case for pandemics, climate change has often triggered the rise or fall of great empires. Many historians take the view that climate variability leading to agricultural instability contributed to the decline and fall of the Roman Empire. Rome's economic basis was eroded and the barbarians living at the periphery of the empire saw a decline in their agricultural resources, forcing them to move west and south.

The temple complex of Angkor Wat served as the capital of the Khmer Empire. It is believed that changes in rainfall damaged the sophisticated water supply system that underpinned its economy, and this is one of the main reasons for its collapse.

The Mongol Empire was dependent on livestock to support its economy. Horses were also used for communication, and not the least for warfare. In the first decades of the thirteenth century the climate changed abruptly, with drought replaced by heavy rainfall, resulting in abundant grasslands. This happened simultaneously with the rise to power of Genghis Khan, and it probably contributed to the dynamism of the Mongol Empire under him and his immediate successors.

Pandemics and climate change may be some of the main reasons behind the rise and fall of nations and empires. It is also almost certain that in the future mankind will be confronted with further upheavals leading to geopolitical change.

5. Use of Medicine

The human body is genetically engineered to repair itself and to fight disease. Nonetheless, it is no coincidence that people die from disease. Perhaps we are genetically engineered to die at a much younger age than is seen around the world. Maybe nature intends to create its own defence against some of these diseases, but is prevented from doing so by human intervention. Perhaps other diseases form part of the nature-human relationship. Maybe some diseases have a role in the ecosystem that we do not understand.

The fact that we interfere in the system by fighting diseases with medicine—however laudable and perhaps however much people struck by such diseases appreciate it—means that in the long run we weaken our own immune systems. In the very long run, this may lead to total dependence on medicine because a weakened immune system is no longer able to do the job. A possible outcome could be similar to the effect of the loss of natural diversity, with us running the risk that one

day nature will strike back with bacteria and diseases that medicine is unable to combat.

Irresponsibility in disposing of unused medicines is widespread, with most people just throwing them in the garbage can. The long-term effect of such behaviour on nature is devastating.

6. Use of Chemicals

Chemicals have found their way into our daily lives in unprecedented ways. Agriculture is heavily dependent on pesticides, insecticides and fertilizers. Most cleaning materials contains chemicals. The list is endless. The conventional wisdom is that the use of chemicals is harmless—at least if used properly—but common sense raises a question mark over the long-term consequence on nature of the steady and increasing outpouring of chemical substances that are not organic and consequently cannot be absorbed by the ecosystem.

Some of this can be classified as a pollution problem, with at least some countries taking action against toxic substances. But equally dangerous may be the long-term consequences of what are regarded as harmless chemicals slowly accumulating in human beings, animals and plants—in short destroying the ecosystem without us noticing it.

Biotechnology, medicine and chemicals have one common denominator. They are tools used by mankind to create an artificial world—to eliminate nature's own way of working and to replace it with a way chosen by mankind to serve us from the narrow and short-term perspective of what is profitable defined by economics. One wonders whether such a world is compatible with the survival of the present civilization—or perhaps even of mankind over the longer term.

7. Age of Anthropocene⁸

Until about the year 1900, nature defined the environment for human activity. Human beings had to adjust to nature and to live in conformity with nature and the ecosystem. Since then, mankind has

gradually but surely turned the tables. And we now live in an era where humans have a strong impact on the ecosystems, forcing them to adjust, with climate change being an example of this, although not the only one.

But the Age of Anthropocene has already been overtaken by a new age, which has not yet been labelled, allowing the use of the *Age of Irresponsibility*. Human beings can now through biotechnology and artificial intelligence change nature and the ecosystems, creating a non-natural world—a world in which mankind interferes in the holy grail of determining what life is and what it means.

8. Demographics

By the year 2100, the global population—presuming no major wars in the interim—could reach nine to ten billion people. Contrary to the case of the past, a large share of this population will be the elderly, who will need to be supported by the reducing share of people in the working-age bracket. The burden is heavy, and will grow heavier year by year. Even worse, it constitutes a break with nature. Before mankind started to use medicine, the composition would be a large number of young people and a very small number of people above forty years of age—the number of grandparents was small. From a rather brutal perspective, it can be said that humans were here to ensure a new generation was born, and having done so, and after having taken care of their offspring, they would pass away. From the 1500s onward and till around the year 1800, life expectancy throughout Europe hovered between thirty and forty years of age.

It is doubtful whether the earth can continue to deliver the resources with such a large global population increasingly looking for a good life. Add to this the socio-economic problem that a proportion of them (those aged above sixty-five years)—and in some countries this group may account for more than forty per cent—will not contribute to production, but they still ask for a good life. A clash with the working age group of the population is possible, perhaps even likely. It will be a major political problem to find the money and the manpower to cater to the demands of the elderly. Furthermore, the largest share of

people will live in areas with lower living standard than the richer parts of the globe, which points to a geopolitical clash between the minority defending their privileged position.

9. Political Elite Decoupling from the Population

Another fracture threatening cohesiveness is that the elite no longer feels responsibility for governing the nation-state. In fact, members of a nation's elite distance themselves from their less-educated fellow nationals and instead communicate with and regard themselves as part of a global elite instead. They may carry the same passport, but they do not have much in common.

The elite travel, live and work with little regard for the nation-state they originated from, contrary to the situation for the less-educated people who feel increasingly left behind with no option to prosper from globalization—their horizon is the nation-state. A good life for them is becoming increasingly difficult to achieve as the elite seize an ever-growing share of wealth while at the same time coming close to monopolizing access to the top schools and universities for their children.

10. Education

The road into higher education opening the door for upward social mobility may be blocked for those without rich parents, even if some schemes exist to help poorer students financially. There are stories in the mass media of how parents have presented ivy league universities with gifts or donations in order to have their children accepted there, even if they have a mediocre academic record.⁹

The paradox is that the masses now have levels of education sufficient to contest decisions by the leadership but not good enough to offer alternatives. The implications are that the masses voice their dissatisfaction with the decisions and failures of the elite, as the example of the global financial crisis illustrated. But if members of the masses get into power, they display a similar failure to govern, very often accentuated by populism and nationalism for the simple reason that a map to navigate this uncharted terrain does not exist.

The schism between the national elite and the masses has been accentuated by the transformation of top universities into intellectual multinational enterprises that attract an increasing share of students from abroad, crowding out national students in the process. For the academic year 2018/19, 30.33 per cent of all students enrolled at Massachusetts Institute of Technology came from abroad.¹⁰

11. Social Losers

The shift from manufacturing to information and communication (the audio-visual economy) has produced a large number of social losers. The skilled worker in an industrial plant was the king during the manufacturing age. Now such individuals have lost their jobs and possess skills for which there is no longer any use. For the most part they are too old to adapt to new jobs, and the jobs remaining to them are largely lower paid ones in the services sector, which they reject. Over the decades they have insisted that politicians bring their old jobs back and reintroduce industries such as steel plants and car factories. The political opposition have promised to do this, but as soon as they get into power they adopt policies analogous to those of the previous governments. The skilled workers feel betrayed and they are unable to accept that technologies such as robotics and outsourcing cannot be rolled back.

They have reacted by voting not for the opposition but against the system. This explains Donald Trump's victory, Brexit and the coming into power of the Five Star Movement and Lega Nord in Italy. These individuals became social losers and reached the conclusion they had nothing further to lose by voting against the system because they had already lost everything they had.

The result is that the countries that once represented the core of manufacturing strength now harbour a class of disgruntled people who are deeply dissatisfied with the system and who feel they have been abandoned by the elite that are synonymous with the system. Judged by history, such feelings constitute a fundamental threat to the system, and the situation is becoming worse as the system has apparently given up, with the elite being unable or unwilling to share with the social losers.

12. Falling Belief in the System—Pessimism about the Future

People can sense that something is wrong. The feeling that the system does not work for “me” is one that is especially strong among social losers. According to the 2019 Edelman Trust Barometer,¹¹ trust in the future is found in only 6 of the 26 nation-states analysed,¹² with 6 expressing neutral responses and 14 indicating distrust. Digging a little deeper, the analysis discloses three fundamental gaps threatening the cohesion of nation-states and the global system.

The first fundamental gap is that trust is almost exclusively found in emerging markets or developing economies (EMDE), with China at the top followed by Indonesia, India, the United Arab Emirates and Singapore. Of the 14 nation-states expressing distrust, 11 are industrialized, with the United Kingdom, Ireland, Spain, Japan and Russia at the bottom. The only industrialized country in the bracket expressing a neutral response is the Netherlands. This bodes ill for a concerted international effort to tackle the global problems that will be decisive for the future of the current civilization.

The second one is the trust inequality showing a gap equalling the previous highest point between the informed public and the mass population at 16 percentage points. Asked whether they believe they and their families would be better off in five years’ time, these two gaps are confirmed, with not a single industrialized country among the top ten and not a single EMDE among the bottom ten. With one exception (Russia), the informed public took a more positive view on the future than the mass population.

The third one is whether the system works for “me”, with 20 per cent of the mass population and 21 per cent of the informed public saying *yes*. Figures of 72 per cent of the mass population and 74 per cent of the informed public felt the situation was one of injustice. And 24 per cent of the mass population and 17 per cent of the informed public expressed a lack of hope.

Key Points

These findings make it pertinent to analyse how the political systems and economic model function, to be followed by an attempt to sketch

out what will take place over the next fifteen years. How will the system react under the seminal changes casting their shadow over the future of mankind? How have these changes influenced the mindsets of political leaders and business leaders? Can we find any trace of these fundamental changes in the behaviour of nation-states in defining priorities for their security policies?

In the following chapters, we will look at seven elements that determine how the system works, and what the implications of this are for the future.

1. The interaction among capitalism, technology and globalization
2. Democracy
3. The nation-state and multinational companies
4. What the global financial crisis meant for the global system
5. How the world will look in a horizon 2035 analysis
6. The rise of regionalization replacing globalization
7. The future of Asia in this context

It will become clear that mankind is no way near to addressing the twelve fundamental changes, and it continues to steer a course set by ideas and norms surviving from the last decades of the twentieth century. The guiding principle is still the market economy emphasizing short-term profit for private enterprises and without incorporating social effects, degradation of the environment or exploitation of non-renewable resources.

The two main threads of the analysis and conclusion put forward in this book are the move from globalization to regionalization and the role of social networks dividing instead of unifying people.

The global superpower, the United States, no longer possesses sufficient economic, technological and military power to set a course for the globe—even less the future of civilization. Nor does its population want to pay the price of being an icon. China, seen as the most likely successor, cannot succeed because of demographics, dependence on outside countries to feed its population, overdependence on imported energy, and the lack of a developed service industry with a worldwide reach. Unlike the case with the United States in its glory days, China is not likely to be seen as a model for other countries. Hence, we move towards a regional world.

The paradox of social media is that technically—the infrastructure is there—they push the globe towards globalization, but people use the global networks and the opportunities provided to exchange views worldwide to deepen disagreements and denigrate the views of others. A kind of intellectual and conceptual fragmentation takes over. The role of social networks has given rise to a power struggle between the states and the big data companies. This has been exacerbated by increasing concerns about privacy, cybercrime and the abuse of the net, often seen in the context of fake news. This leaves a good many people uncertain about which information is true, leading them to look in vain for guidance and hence falling easy prey to imposters.

Notes

1. Christof Koch, “Is Death Reversible”, *Scientific American*, October 2019, pp. 26–29.
2. <https://www.nationalgeographic.com/animals/2019/02/why-insect-populations-are-plummeting-and-why-it-matters/>.
3. https://www.washingtonpost.com/climate-environment/2019/05/06/one-million-species-face-extinction-un-panel-says-humans-will-suffer-result/?utm_term=.0582987ec3c9.
4. <https://www.sciencedaily.com/releases/2017/06/170626105746.htm>.
5. World Economic Forum, *The Global Risk Report 2019*, http://www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf.
6. <https://www.ecowatch.com/cities-vulnerable-sea-level-rise-2610208792.html>.
7. <https://www.wri.org/blog/2019/08/17-countries-home-one-quarter-world-population-face-extremely-high-water-stress>.
8. The Age of Anthropocene is defined as significant human impact on the earth’s geology and ecosystem.
9. <https://www.theguardian.com/commentisfree/2018/oct/21/what-will-help-you-get-into-harvard-super-rich-parents>.
10. <https://iso.mit.edu/general-statistics-2018-2019>.
11. https://www.edelman.com/sites/g/files/aatuss191/files/2019-02/2019_Edelman_Trust_Barometer_Global_Report.pdf.
12. The Trust Index is the average percentage trust in NGOs, businesses, governments and media.

